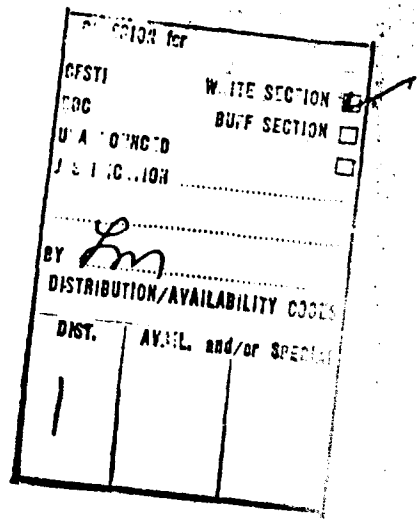

EDIS TASK I REPORT
WORK UNIT 1.3
IDENTIFICATION OF USER NEEDS

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PREFACE

This report is one of a series of documents being prepared under the EDIS Task I contractual effort. The objective of these reports is to document existing and potential sources of, and requirements for, engineering and scientific data and information in the Army RDT&E community. The information contained in these reports will provide the primary input and data base to the Task II (software development), Task III (network design) and Task IV (training) efforts. Each report presents and discusses data and information gathered and analyzed in a specialized area of study pertinent to the design and development of EDIS. Although these documents are self-contained, each comprises part of a planned effort to develop a data base for decisions about the EDIS concept.

ABSTRACT

This report presents the identification of user needs in the Army RDT&E community. Two types of information are provided in this report. The first type includes discussion of the RDT&E cycle, the level of informational need, time response, item categories and other factors as they relate to the user of scientific and technical information. The second type of information presented is parametric and includes information on the users in the Army RDT&E community classified by discipline, subject field mission/function and geographic distribution. This information was developed as part of the Task I effort for the Army Engineering Data and Information System (EDIS).

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1.0 SUMMARY

1.1 Purpose and Scope

This report presents the results of a study on the characteristics and needs of Army employees (civilian and military) who use scientific and technical data and information to accomplish their assigned tasks. The objective of this study is to develop parametric information concerning user needs for use in determining the functional requirements of EDIS.

The study includes only those persons in the Army whose work is classified as contributing to research, development, test and evaluation (RDT&E). The governing parameter in the identification of their needs and characteristics was the conceptual configuration of EDIS as presented in EDIS-1: EDIS Concept and Action Plan Report, and EDIS-2: Recommended Approaches to Design of the U.S. Army Engineering Data and Information System. The parameters by which user needs have been identified and classified include the following: (1) discipline, (2) field, (3) installation, (4) specific phase of the RDT&E cycle, (5) item category, (6) function, (7) level of information need, (8) time response, and (9) geographical distribution. Working within this scope, the identification of user needs and characteristics has been made to achieve the stated purpose of this study.

1.2 Conclusions

A summary of the conclusions reached in this study is presented below. References are shown indicating the sections where detailed discussions leading to these conclusions are presented.

a. The results of the DOD User Needs Study are applicable to the Army RDT&E community as presented in the TEL/TIPS Survey. (See Section 3.0)

b. There appears to be no outstanding evidence that the different segments of the RDT&E cycle present different information problems or needs for the user. (See Section 4.0)

   (1) The segments of the RDT&E cycle do not influence the user as to the information sources he uses, the level of information he needs, or the time response required to perform his task.
   (2) Proportionately greater amounts of certain types of information are needed by the user in different segments of the RDT&E cycle but not to the point of exclusion of other types of information.

c. The level of information most often desired by the user is a detailed analysis of a subject. (See Section 5.0)

d. There is a strong need for an information system that incorporates those qualities that cause a user to go to his local information sources first, namely: (1) availability; (2) authoritativeness; and (3) a historical record of helpfulness to the user. (See Section 8.0)

e. The individual user of data and information should not be burdened with knowing about all of the specialized information centers inside and external to the Army. Rather, EDIS should interface with as many of these systems as possible so that the user has only one system to address to receive an answer to his enquiry. (See Section 8.0)

f. Over fifty-three percent of the assignments of Army RDT&E personnel are in the Engineering discipline. No other discipline accounts for more than twelve percent of the RDT&E assignments. (See Section 9.0)

g. All disciplines are heavily concentrated in the combined Northeast and Middle Atlantic area.

h. Engineering and Physics have their largest concentrations in the Northeast.

i. Engineering is the only discipline that has a significant number of users in each geographic area of the U. S.

1.3 Recommendations

The following recommendations are made based on this study:

a. The maximum time response of EDIS should be 48 hours or less, if possible, to answer a request. Satisfying this requirement will achieve the following:

(1) Minimize the amount of elapsed time (as opposed to the actual time) in performing a task that is dependent upon obtaining information.
(2) The reliance of the user on local information sources would not be threatened but complemented, establishing a proper balance between the information sources of one's local environment and external information resources.
(3) Establish user's confidence in the system and thereby assure his continued use of the system. (See Section 6.0)

b. EDIS should interface with specialized information centers inside and external to the Army to achieve the following:

(1) Provide the user of scientific and technical information a single reliable and comprehensive source for information and data.

(2) Eliminate for the user the need of keeping informed of the many specialized information systems now in existence and how to use them.
(3) Assure for the user that all relevant information centers will be queried to obtain the requested information. (See Section 8.0)

c. The EDIS design should provide for monitoring of requests of the users as to their level of informational need and assure that the answer is commensurate with the analysis of the request. (See Section 5.0)

d. A study should be performed of a number of existing successful information systems to determine:

(1) The importance of time response to the user.
(2) The maximum allowable time response of an information system before its effectiveness begins to be compromised.
(3) Other user needs satisfied by each system in order for it to meet with success. (See Section 6.0)

e. If item-category information about the user could be gathered at a minimal cost, it should be obtained. This information would provide an input to the development of the EDIS common language. (See Section 7.0)

f. The TEL/TIPS data file of Army personnel should be maintained and updated. Information about the user of information in the Army would be readily available for the design of EDIS or any other information system project. The TEL/TIPS data file should also be maintained as a expert-to-expert locator interfaced with EDIS upon its implementation.

2.0 INTRODUCTION

2.1 Background Information

In early 1965, the Howard Research Company began work on Task I of the Engineering Data and Information System (EDIS) for ERDL, Fort Belvoir, U. S. Army. The purpose of EDIS Task I is to determine the information needed and available, the location and characteristics of that information, and the strengths and weaknesses of existing systems presently handling engineering data and information. The objective of EDIS Task I is to supply EDIS Task II (Development of EDIS Software) and EDIS Task III (Network Design of EDIS) with a data base from which to proceed. The basic concepts of EDIS and their development are discussed in the EDIS-1 report, (AD 444700L); the EDIS-2 report (AD 453737L); the EDIS Task I Progress Report, dated 15 June 1965; and the EDIS Task I Interim Report, dated 1 September 1965. The latter two reports were prepared by Howard Research Company.

This report presents the results of Work Unit 1.3, Identification of User Needs, which represents the first phase of a two-part study on user needs of the Army RDT&E community. The final phase of this study will be performed under Work Unit 1.6, Determination of Additional D&I Needs.

2.2 Contents and Scope

Two types of information are provided in this report. The first type of information includes discussions of the RDT&E cycle, the level of informational need, time response, item categories and other factors as they relate to the user of scientific and technical information. From these discussions, specific user needs are identified that are important to the design of EDIS.

The second type of information presented is parametric and includes information on the users in the Army RDT&E community classified by discipline, subject field, mission/function, and geographical distribution. This type of information is also important to EDIS Task II and Task III for design purposes, since it shows the characteristics and concentration of potential users of EDIS. This information should be used in the design of EDIS in conjunction with the information contained in the concurrent HRC reports on the categorization of D&I holdings and existent data systems.

3.0 INFORMATION SOURCES

3.1 Information Sources Used

In order to accomplish the objectives of this study, two surveys were used as primary sources of information. The first survey, the DOD User Needs Study[1] conducted by the Auerbach Corporation, covered the entire Department of Defense, using a statistical sample of approximately 1,400 persons performing work in RDT&E. The DOD User Needs Study provided information in each of the following categories:

a. Characteristics of the DOD RDT&E population (e.g., age, education, job title, rating, MOS or job code, type, kind, and field of activity).

b. Characteristics of RDT&E tasks (e.g., field, length of task, how originated, kind, form, and nature of output).

c. Characteristics of the information chunks acquired and used in performing RDT&E tasks (e.g., class, media, volume, depth, timeliness).

d. Use of information services (e.g., TAB, DDC, information centers).

The second source, the TEL/TIPS Survey,[2] was limited to personnel performing work in RDT&E in the Army. The survey, conducted by CEIR, Inc. in FY 1964 as part of the On-Site STINFO Survey, located and interviewed over 13,000 Army RDT&E personnel. Included in the survey were the

[1] DOD User Needs Study, by Auerbach Corp., Vols. I and II, May 1965.

[2] TEL/TIPS Survey, part of the On-Site STINFO Survey, conducted by CEIR, Inc., September 1964.

following kinds of information: name, grade or rank, date of birth, location by installation or organizational element, job title, organization title, current assignment, experience, education by degree held and major subject, and current assignment description.

A special user needs study was made of chemists in the Army. Conducted by Charlotte Smith of Frankford Arsenal, this study surveyed eighty two users of chemical information to determine their information requirements. The report shows the position ratings and educational level of this to group to be higher than those found in TEL/TIPS and the DOD User Needs Study. Several applications of the results of this user need study are made in the following sections.

Other works on the needs of users of scientific and technical information were studied (See Bibliography). Although not directly relevant due to their coverage of specific occupations or subject fields (e.g., atomic physicists and chemistry), these reports provided useful background information for this study.

3.2 Correlation of Data from Information Sources

In order to apply the results of the DOD User Needs Study to the Army RDT&E community, it was first necessary to compare the two surveys to determine the correlation between the data. This was done by matching the results of corresponding areas in both surveys. The areas used to accomplish this correlation were discipline and position rating.

The first match is by disciplines. The current assignments found in the TEL/TIPS Survey were divided into the nine disciplines, and the percentage of users for each discipline was determined. The correlation with the DOD User Needs Study was achieved by using the data on MOS and job codes which reflect disciplines. The results of this match are shown below:

Discipline	TEL/TIPS Survey Current Assignments (%)	DOD User Needs Study MOS - Job Code (%)
Astronomy	0.1	0.3
Biology	9.2	3.0
Chemistry	11.9	7.0
Earth Science	3.3	4.0
Engineering	53.6	51.0
Mathematics	6.9	6.0
Physics	10.5	10.0
Psychology	1.9	1.0
Social Science	2.6	---
Other	---	17.7
TOTAL	100.0%	100.0%

This correlation between these two surveys show the following about RDT&E personnel in the Army and DOD:

a) Slightly higher than fifty percent of the RDT&E personnel are in Engineering;

b) Between ten and eleven percent of the personnel are in Physics;

c) Between six and seven percent are in Mathematics and Statistics;

d) Between three and four percent are in Earth Sciences; and

e) Between one and two percent are in Psychology.

In Biology and Chemistry, the percentages are slightly higher for the Army than they are for all of DOD. This heavier concentration in the disciplines of Biology and Chemistry is to be expected considering the varying missions of the three services that make up DOD.

The second match was made on military and GS position ratings. The following chart shows the correlation for these position ratings.

Position Rating	TEL/TIPS Survey (%)	DOD User Needs Study (%)
GS05, GS07, 00E2 } 00E5, 00E6	8	4
0001, GS09	11	8
0002, GS11	20	15
0003, GS12	24	23
0004, GS13	19	24
0005, GS14	12	16
0006, GS15	5	8
0008, GS16, 0313	1	2
TOTAL	100%	100%

This chart shows that the position ratings for the Army and for DOD RDT&E personnel have a close correspondence. Over sixty percent of the RDT&E personnel have position ratings in grades GS-11, 12, and 13.

The results of these two matches show that the two surveys correspond very closely. It is, therefore, concluded that the results of the DOD User Needs Study are applicable to the personnel structures of the Army as reflected by the TEL/TIPS Survey.

4.0 USER NEEDS AND THE RDT&E CYCLE

This section presents a discussion of the relationship between user needs and the RDT&E cycle. The purpose of this section is to determine if there are varying types of information or special information problems associated with the different segments of the RDT&E cycle.

4.1 Types of Information Needed and the RDT&E Cycle

Table 4.1 shows the segments of the RDT&E cycle, along with a listing of the types of information needed most often by the user for each segment. Included in the table are percentages which indicate the relative need for each type of information. The data used to prepare this table was obtained from the DOD User Needs Study.

A general trend can be noted in the types of information required by the user as the area of work changes from one part of the cycle to another. As the area of work approaches the research segment of the cycle, the use of theories, ideas and conceptual information increases, but not to the exclusion of other types of information. Therefore, users engaged in research work tend to use media, such as journals, more frequently than those who are engaged in other segments of the RDT&E cycle.

Table 4.1

Types of Information Needed Most Often by the User for Each Segment of the RDT&E Cycle

Cycle Segment		Relative Need (%)
A.	Research	
	1. Performance and characteristics, specifications	27
	2. Design techniques, experimental processes, production processes and procedures	23
	3. Theories, ideas, conceptual information	15
	4. Technical status and progress information	15
B.	Exploratory Development, Advanced Development, Engineering Development, and Operational Systems Development	
	1. Performance and characteristics, specifications	46
	2. Design techniques, experimental processes, production processes and procedures, utilization and test processes and procedures	18
	3. Technical status and progress information	10
	4. Theories, ideas, conceptual information	7
C.	Reliability and Quality Control	
	1. Performance and characteristics, specifications	40
	2. Design techniques, experimental processes, production processes and procedures, utilization and test processes and procedures.	28
	3. Theories, ideas, conceptual information	7
	4. Technical status and progress information	3

Table 4.1 (Cont'd)

D. R&D Support	Relative Need (%)
1. Performance and characteristics, specifications	42
2. Design techniques, experimental processes, production processes and procedures, utilization and test processes and procedures	21
3. Technical status and progress information	12
4. Theories, ideas, conceptual information	7

4.2 Information Problems and the RDT&E Cycle

Another trend shown by the DOD User Needs Study concerns where the users in each segment of the cycle obtain their information. The closer the user is to the research segment of the RDT&E cycle, the greater is his reliance on libraries. Also, in the research segment of the cycle, the need for information from manufacturers or suppliers is significantly less than in other segments of the cycle. For all other segments of the cycle there is no significant difference as to where the user goes to obtain his information.

Concerning the RDT&E cycle, two other results should be pointed out. The RDT&E cycle does not influence the level of information needed by the user (see Section 5.0). Additionally, the time response required by the users is the same for all segments of the RDT&E cycle (see Section 5.0).

4.3 Conclusions

There appears to be no outstanding evidence from the DOD User Needs Study that the different segments of the RDT&E cycle present different information problems or needs for the user. The study shows that the same types of information are needed by the user in each segment of the cycle, although certain segments may use a proportionately greater amount of some types of information than other segments. Similarly, user needs in other areas, including information sources used, level of information needed, and time response required have been found to be independent of the segment of the RDT&E cycle in which the user is engaged.

5.0 LEVEL OF INFORMATIONAL NEED

5.1 Results of "DOD User Needs Study"

The level of informational need refers to the specificity of the information requested by the user. The DOD User Needs Study classified the desired depth or level of information required by the user in three categories: 1) once-over-lightly information; 2) detailed analysis; and 3) specific answers. The results of the survey showed that 46 percent of the users requested detailed analysis information, 22 percent requested a specific answer, and 15 percent requested once-over-lightly information. These percentages corresponded closely with percentages for information received in response to user requests. These figures indicate that most users want to provide themselves with a good grasp of the information they are seeking.

The results of this question were matched with the results of other questions in the survey to determine if any outstanding features might result. The following is a summary of those results:

a. Kind of Task vs. Desired Depth of Information: The survey shows that the level of informational need does not vary with the various segments of the RDT&E cycle.

b. Man-Days of Task vs. Desired Depth of Information: As the length of the task increases, the need for a detailed analysis increases as opposed to a once-over-lightly or a specific answer. Stress on the depth of information in the system should be placed on detailed analysis type of information.

c. Media vs. Desired Depth of Information: The desired depth or level of informational need does not vary with the type of media. It appears, and is so stated in the study, that the level of informational need is a subjective matter in the mind of the user. Superficially, it would appear that certain media would provide specific answers while other media would better serve the purpose of an overview of a subject. This, however, is a weak assumption because this characteristic is determined by the user and is not inherent in the conveyor of the information. A map of a city, for instance, is most commonly used to locate a specific street but, depending on the user, its use could be a study of the arrangement of the city with emphasis on an overview for city planning.

d. Desired Exposure to Information vs Desired Depth of Information: In general, the fewer the documents requested or wanted by the user the more specific the answer will be that is being sought.

e. Desired Depth of Information vs First Source: The depth of information needed by the user does not dictate his choice of first source. He will use his local informal information sources first, independent of the level of information he is seeking.

f. Nature of Task vs. Depth of Information Wanted: The nature of a user's task or its output does not influence the level of the information needed by the user in any specific way.

5.2 Analysis of "DOD User Needs Study" Results

The length of time of a task was shown to affect the level of information needed. As the length of the task increased, the user's need for detailed analysis information increased. It must be assumed that a cut-off point would be reached after a certain length of time. More

importantly, but not substantiated by the DOD User Needs Study, is the need for a certain level of information at specific stages during the duration of the task. It would appear to be true that at the onset of a task a user would need general information. Once the task was started, detailed analysis information would play an important part, while specific answers would be needed as the task approaches completion. Another factor influencing the depth of information wanted by the user is the number of documents requested. The fewer the number of documents requested the more likely a specific answer is being sought.

5.3 Conclusions

Based on the results of the DOD User Needs Study, it can be concluded that the level of information need is not influenced by any particular segment of the RDT&E cycle or types and kinds of tasks a user is performing. It is further concluded that the depth of information wanted is in the mind of the user and cannot be related in any significant way to the information or its media. However, there are a few corollaries that can be stated about the user and the level of his informational need that have implications for the design of EDIS.

5.4 Implications for EDIS Design

Since a detailed analysis is being sought almost fifty percent of the time, EDIS should orient itself and its information sources to meet the detailed analysis type of request.

Two parameters that would be useful for EDIS to monitor, to provide the user with the level of information he is seeking, are the following. First, the question should be analyzed as to the level of information the user needs. The results of the search should then be matched with that analysis in an attempt to assure customer or user satisfaction. The second parameter is the number of documents requested. If the number of documents requested is small, it would indicate that the searcher is looking for a specific answer.

Success of an information system is dependent upon making the user go to that system as his first source. The level of information needed by the user, however, does not influence his choice in selection of his first source. If the answer to a request corresponds to the level of information desired by the user, using the above stated parameters, his choice of first source may be aided to a large degree in utilizing the information system as opposed to his local environment, i.e. colleagues, personal files or office files.

6.0 USER NEEDS AND TIME RESPONSE

Time response is one of the most important considerations in the design of a information system. If the response time is slow, the system tends to become discredited in the eyes of the user, and it will cease to be utilized by the user except as a last recourse. Our concern in this study is determining how rapid an information system must be to satisfy the request of the person who seeks information.

6.1 Results of the "DOD User Needs Study"

The DOD User Needs Study shows the relationship between the sources used and the time elapsed in obtaining the information. The report states:

> "when information is obtained in less than a day, the department bookcase and personal files are commonly used as the first source. When information is obtained in less than one week, colleagues and manufacturers are commonly used as the first source. When information is obtained in one week or more, the library is used to some extent."[3]

It is important to note that the time response of information centers was not included in the statement because of the small number of responders who used this information resource.

Concerning desired retrieval time, the report states that "when the information is desired in less than one

[3] Op. Cit., P. 6-108

week, colleagues, one's own collection, and department files seem to be heavily used as a first source of information. As the retrieval time increases, there is a tendency to assign a subordinate to locate the required information."[4] Also, as the desired retrieval time increases, there is no indication that the reliance on information centers increases. The report states that "information was generally obtained in less than the allowable time."[5] This would indicate that a high speed information system would add little in terms of the user's need for rapid retrieval. But the report goes on to state that "the time requirement observed may not be too significant, because people tend to adjust their time requirement for information to the existing system."[6]

In the study on user requirements of chemists in the Army,[7] Charlotte Smith states that "In all cases, the users claimed to have gotten the information in time for it to be useful." In this case, however, only two of the eighty-two persons interviewed had an imposed deadline to meet.

These statements can be understood when one considers the length of time of a person's task. Over fifty percent of the tasks investigated by the DOD survey took one to five man-days to complete. This, however, is not the

[4] Op. Cit., P. 6-108
[5] Ibid., P. 1-11
[6] Ibid., P. 1-11
[7] Charlotte Smith, User Requirements for Chemical Information and Data System (CIDS), April 1965, P. 8.

amount of elapsed time spent to complete the task. Because a person was working on a task only part-time, the amount of elapsed time to complete the job was much greater, i.e., if a job took five man-days to complete but was worked on only one quarter or each day, the amount of elapsed time would actually be four weeks. An interesting question regarding these findings is: If the individual had all of the relevant information at the beginning of the task, would he have completed his work in a shorter period of elapsed time? The answer to this question is not available in the report. But it is reasonable to hypothesize that, if the information were available at the beginning of the task, the amount of elapsed time would be reduced even though the actual time spent on the task might remain the same.

6.2 Conclusions and Recommendations

To achieve this goal of providing information at the beginning of a person's assignment requires a rapid response time. Since more than fifty percent of the tasks performed by RDT&E personnel in DOD take five man-days, and, assuming a similar percentage for Army RDT&E personnel, it is recommended that the response time of EDIS be 48 hours or less to answer a request. Satisfying this requirement would achieve the following:

a. Minimize the amount of elapsed time (as opposed to actual time) in doing a task that is dependent upon obtaining information at the beginning of an assignment.

b. The reliance on local information sources would not be threatened, but complemented, establishing a proper balance between the information sources of one's local environment and external information resources.

c. Establish user's confidence in the information system and assure his continued use of it.

It is recommended that a study be conducted of a number of successful information systems in operation which have had a number of ever-increasing requests. Included in the survey should be a number of unsuccessful information systems or systems which have not had an appreciable increase in requests to determine if a slow time response is responsible for the lack of utilization of the system. This study would achieve the following:

a. Establish the importance of time response to the user.

b. Determine the allowable time response possible of an information system before its effectiveness begins to be compromised.

c. Determine other user needs by analyzing what each system provides its users in order for it to be successful.

7.0 USER NEEDS AND ITEM CATEGORY

Personnel in the Army RDT&E community are associated with items through past experience as well as in their current assignment. Categorization of these RDT&E personnel by items could benefit EDIS by indicating the specific items of interest and the associated number of personnel.

7.1 Availability of Item Category Information

In the DOD User Needs Study an attempt was made to breakdown a person's field of activity by item-oriented categories. However, the attempt was unsuccessful because each category represented too few respondents to be meaningful. The TEL/TIPS Survey did not attempt to categorize Army RDT&E personnel by item. Information on the functions of Army installations in Section 10.0 of this report indicates items of collective interest to the personnel at each installation. But a comprehensive list of items of interest to each user is not available.

7.2 Conclusions and Recommendations

In many instances a user requesting information will structure his question around an item of interest. To satisfy such item-oriented questions, EDIS must provide in its common language a means to determine the data banks which contain information about these items. If item-oriented information about the user could be gathered at a minimal cost, it should be obtained. This information would provide a useful input to the development of the EDIS common language.

8.0 USER NEEDS AND ADDITIONAL FACTORS

In this section, the following factors and their relationship to user needs are discussed.

a. Method of acquiring technical information
b. Awareness of the existence of information services
c. Identification of current R&D projects

8.1 Methods of Acquiring Technical Information

How a person goes about acquiring and utilizing scientific and technical information does not necessarily reflect his needs for information or information services. His present methods reflect in sum his past experience in collecting information and his judgement as to what he considers the best path to follow in order to achieve his present task. This path might include altering his task slightly to fit the information that is within his reach, or it might include, for the lack of existing information, varying the methods used to accomplish the task. Depending on the accessibility of the information, that is, the ease or difficulty in acquiring the information, he will make compromises in his task and in his efforts to collect the pertinent information.

A person's past experience in collecting information and the compromises that are made to accomplish his task due to information problems he encounters affect the answers he gives to any user need study. In this analysis of the results of the DOD User Needs Study, these two factors have been considered.

The results of the survey indicate that "the user tended to rely heavily on his local environment as a first source of information" while libraries and information centers were seldom used as a first source.[8] The survey shows that 51 percent actually used this local environment as a first source. The conclusion drawn from this information is that it "tends to confirm the existence and significance of an informal information system consisting of user's personal files, his colleagues, and other local sources of information."[9]

In spite of the significance of the local sources, 49 percent of the persons surveyed used means other than local sources to satisfy their information needs. Moreover, only 50 percent of those persons that did use their local sources received all the information requested. The remainder received only part of the information, were referred to other sources, or received no information. It, therefore, appears that there is a heavy reliance on external sources to the degree that 70% of the information requested comes from sources other than colleagues, personal files and departmental files. These results indicate a strong need for an information system that incorporates those qualities that cause a user to go to his local sources first.

The DOD User Needs Study has uncovered just what these qualities are. The report shows that a requestor

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[8] Op. Cit., P. B-27, question 42
[9] Ibid. P. 1-1

uses his local sources first because he considers them: (1) the most authoritative; (2) previously found helpful; (3) easily available; or (4) the only source known. The first three of these characteristics are precisely the ones an information system should provide its users. These characteristics represent needs of the user of data and information which should be met by EDIS.

8.2 Awareness of the Existence of Information Services

The DOD User Needs Study states that formal information systems were not widely utilized. One reason for this situation was the lack of awareness of the existence of these services. Concerning this problem the report states: "A considerable proportion (21 percent) of the RDT&E personnel were unaware of the existence of the Defense Documentation Center (DDC). A similar proportion (19 percent) were unaware of the existence of any one of 33 specified DOD specialized information centers."[10] A strong effort to publicize these formal information systems, as advocated by the DOD User Needs Study, is not the answer, because it places the burden on the individual members of the RDT&E community to become and remain aware of these services. A more effective utilization of these information systems will result from an information network such as EDIS. EDIS' knowledge of the total number of information systems within its assigned sphere will

[10] DOD User Needs Study, P. 1-13

lift the responsibility from the user, provide more comprehensive searches, and enhance the use of these systems by enlarging their community of users.

8.3 Identification of Current R&D Projects

The DOD User Needs Study states that an information problem exists in the identification of current R&D projects in progress. The resolution of this problem could be achieved, not by advertising the existence of such a system as Science Information Exchange (SIE), whose sole responsibility is to monitor R&D projects in progress, but by interfacing EDIS with that system. EDIS should not try to perform what is already being accomplished, but should utilize existent systems to the greatest extent possible for answering requests from EDIS users.

The identification of R&D projects could also be accomplished in the Army by interfacing the DD 1498 project reporting system with EDIS. This would create an in-house capability to inform those users who have a need to know the current R&D efforts being conducted by the Army.

9.0 IDENTIFICATION OF USERS BY DISCIPLINE AND SUBJECT FIELD

In this section the use of scientific and technical information in the Army RDT&E community are identified by discipline and field. Data is presented in tabular format showing the number of users at each installation. Table 9.1 presents data classifying users by discipline; individual tables (9.2-9.10) are included for each discipline showing data on users by subject fields at each installation.

The tables were developed from data compiled from the TEL/TIPS Survey conducted as part of the On-Site STINFO Survey. Although the survey is two years old, the percentages of Army personnel in each discipline should not have changed significantly during that time period. Due to minor errors found in the TEL/TIPS listing of subject fields, some adjustments had to be made in preparing the tables. Because of the large number of Army personnel covered by the survey (over 13,000), these adjustments do not have any appreciable effect on the data.

The information in the following tables is presented for use in the design of EDIS. In succeeding work units of Task I this information will be correlated with the information on holdings and existing data systems at each location to determine the installation's information strengths and weaknesses.

9.1 Table of Users by Discipline at Army Installations

Table 9.1 shows the number of personnel assignments in each discipline at the 48 Army installations included in the TEL/TIPS Survey. The number of assignments in each discipline does not reflect the actual number of scientific and technical personnel at each location. This table is based on the number of current assignments each of which require at least 30 percent of a person's time. It is possible, therefore, to have a person's current assignment reflected in more than one discipline.

To adequately indicate the number of possible users in any one discipline, it was necessary to select an arbitrary percent of a person's time spent on an assigment. Thirty percent was chosen because higher percentages would tend to eliminate persons who have a legitimate need for information within a discipline. On the other hand, assignments that require less than thirty percent of a person's time might inflate the interest within a particular discipline.* This could produce a false parameter in terms of the number of personnel whose current assignment falls within that discipline.

The total number of personnel within the Army whose current assignments fall within each discipline is shown at the end of the table along with the corresponding percentage of all assignments represented by the disciplines.

*The TEL/TIPS Survey included current assignment percentages from 1% to 100%.

The last column in the table shows the actual number of scientific and technical personnel at each location as reported by the TEL/TIPS Survey. The installations are presented in descending order from the installation with the highest number of RDT&E personnel to the lowest.

It is observed from Table 9.1 that over fifty-three percent of the assignments of Army RDT&E personnel are in the Engineering discipline. No other discipline accounts for more than twelve percent of the RDT&E assignments.

TABLE 9.1 USERS BY DISCIPLINE AT ARMY INSTALLATIONS

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
1. Picatinny Arsenal, N.J.										
Munitions Command Hqs.	-	2	8	-	30	2	-	-	2	55
Headquarters	-	-	206	6	1253	84	104	17	27	1513
Sp. Proj. Selected Ammo	-	-	-	-	6	-	-	-	-	8
Totals	-	2	214	6	1289	86	104	17	29	1576
2. Ft. Monmouth, N.J.										
Satellite Comm. Agency	-	-	-	-	52	2	-	-	5	63
Electronics Command Hqs.	-	-	-	2	23	1	2	-	-	30
U.S. Army Patent Agency	-	-	-	-	1	-	1	-	3	10
Electronics R&D Labs	2	6	81	55	1025	54	286	-	11	1331
Sp. Proj. AACOMS	-	-	-	-	4	1	-	-	-	6
Sp. Proj. AN/VRC-12	-	-	-	-	8	-	-	-	-	6
Sp. Proj. MQM-58A	-	-	-	-	8	-	-	1	1	13
Sp. Proj. Radas	-	-	-	-	5	1	-	-	2	9
Sp. Proj. Unicom-Starcom	-	-	-	-	2	1	-	-	-	3
Signal Radio Prop. Agency	-	-	-	1	10	8	15	-	-	15
Totals	2	6	81	58	1137	69	304	1	22	1496
3. White Sands Missile Range, N. M.										
Headquarters	-	3	4	5	453	158	68	10	10	843
Electronics R&D Activity	-	-	3	45	169	34	69	-	12	300
Totals	-	3	7	50	622	192	137	10	22	1143

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
4. Aberdeen P.G., Md.										
Ballistics Rsch. Labs.	1	-	44	25	136	108	126	1	2	406
Human Engr. Labs.	-	1	-	-	54	3	14	20	2	89
Coating & Chem. Labs.	-	-	60	-	2	-	-	-	-	41
Test & Eval. Cmd. Hqs.	-	-	-	-	39	6	1	-	1	66
Headquarters	-	-	1	-	213	3	15	-	2	227
Limited War Labs.	-	-	3	2	16	7	3	-	2	37
Ordnance Agency	-	-	-	-	1	-	-	-	1	4
Totals	1	1	108	27	461	127	159	21	10	870
5. Redstone Ars., Huntsville, Ala.										
Missile Cmd. Hq.	-	-	69	1	284	17	32	-	10	451
Missile Spt. Cmd.	-	-	35	13	206	32	55	-	1	406
Totals	-	-	104	14	490	49	87	-	11	857
6. Edgewood Arsenal, Md.										
Nuclear Defense Lab	-	-	16	7	11	3	29	1	3	63
Headquarters	-	5	10	-	44	20	-	-	7	94
Chemical R&D Labs	-	136	252	3	100	46	47	17	12	512
Environmental Hyg. Agency	-	3	-	-	4	-	1	-	3	13
Totals	-	144	278	10	159	69	77	18	25	682
7. Harry Diamond Lab, Washington, D. C.	1	9	40	12	432	33	124	8	6	610

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
8. Ft. Belvoir, Va.										
Engr. R&D Labs	1	8	43	7	336	10	83	5	1	447
Engr. GIMRADA	3	-	3	60	20	3	5	-	2	107
Combat Dev. Cmd. Hq.	-	-	-	-	1	30	-	-	4	44
Engr. Cntr. & School	-	-	-	-	-	-	-	3	1	5
Army Management School	-	-	-	-	-	1	-	-	1	5
Totals	4	8	46	67	357	44	87	8	9	608
9. Frankford Arsenal, Phila., Pa.	-	4	52	3	336	23	102	8	23	505
10. Ft. Detrick, Md.										
Biological Labs	-	410	34	6	46	27	14	1	14	446
Medical Unit	-	34	3	-	-	-	-	-	-	36
Totals	-	444	87	6	46	27	14	1	14	482
11. Walter Reed Gen. Hospital, Washington, D. C.										
Walter Reed Gen.Hospital	-	15	3	-	-	-	3	1	7	50
Regional Dental Activity	-	-	-	-	1	-	-	-	3	3
Med. R&D Cmd. Hqs.	-	19	-	-	1	-	1	-	2	18
Inst. of Dental Rsch.	-	9	3	-	-	-	1	-	3	15
Army Inst. of Research	-	226	107	-	9	2	25	20	14	283
Prosthetics Rsch Lab	-	1	16	-	16	-	-	-	1	29
Armed Forces Inst of Path WRAMC	-	62	6	-	-	1	4	1	2	61
Armed Forces Pest Control Bd.	-	3	-	-	-	-	-	-	-	4
Totals	-	335	135	-	27	3	34	22	32	463

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
12. Natick, Mass.										
Natick Lab Hqs.	-	30	184	25	152	8	35	4	9	415
Inst. of Envir. Med.	-	17	4	-	-	1	3	8	2	36
Totals	-	47	188	25	152	9	38	12	11	451
13. Detroit Arsenal, Warren, Mich.	-	-	-	-	6	-	-	-	-	10
Tank & Auto Center	-	1	19	3	439	13	16	3	3	393
Totals	-	1	19	3	445	13	16	3	3	403
14. Ft. Huachuca, Ariz.										
Sys.Des.&Eng.Div.CCIS-70	-	-	-	-	12	1	-	-	-	16
Electronics Proving Grd.	-	4	-	12	87	13	6	6	16	179
Electronics R&D Activity	-	4	-	29	40	-	2	-	1	78
CCIS Group	-	-	-	-	-	2	-	-	-	3
Com-Elect Agency	-	-	3	1	4	3	-	1	6	26
Totals	-	8	3	42	143	19	8	7	23	302
15. Watertown Arsenal, Mass.										
Mat'l. Research Agency	1	1	39	2	136	8	45	1	12	205
Headquarters	-	-	1	-	60	-	-	-	7	66
Totals	1	1	40	2	196	8	45	1	19	271
16. Engr. Waterways Exper. Sta., Vicksburg, Miss.	-	2	10	31	205	18	20	2	14	269

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
17. Washington, D. C.										
AMC Hqs.	-	3	12	3	78	6	31	4	4	149
Sp. Proj. Acft. Weapnzn	-	-	-	-	1	-	-	-	-	2
Sp. Proj. Chinook	-	-	-	-	4	-	-	-	-	5
Sp. Proj. Fire Spt. Aerl. Sys.	-	-	-	-	-	-	-	-	-	4
Sp. Proj. Iroquois	-	-	-	-	1	-	-	-	-	-
Sp. Proj. Loh	-	-	-	-	2	-	-	-	-	-
Sp. Proj. Mohawk	-	-	-	-	-	-	-	-	-	-
Sp. Proj. NBC	-	-	-	-	-	-	-	-	-	-
Sp. Proj. Specl Warfare	-	-	-	-	-	-	-	-	-	-
Director of Army Rsch. OCRD	-	1	2	2	4	4	1	6	4	43
Totals	-	4	14	5	90	10	32	10	8	212
18. Watervliet Arsenal, New York Headquarters	-	-	16	1	156	19	19	3	1	205
19. Rock Island Arsenal, Ill.										
Weapons Comd. Hqs.	-	-	-	-	29	2	-	-	5	38
Rock Island Arsenal	-	-	78	-	84	3	3	1	1	124
Totals	-	-	78	-	113	5	3	1	6	162

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
20. Ft. Eustis, Va.										
Transportation Rsch Cmd.	-	-	-	-	102	6	2	0	2	126
Transportation Board	-	-	-	-	5	-	-	-	-	11
Transportation Agency	-	-	-	-	1	1	-	-	-	19
Totals	-	-	-	-	108	7	2	-	2	156
21. Springfield Armory, Mass.										
Headquarters	-	-	4	-	130	6	5	-	-	148
22. Ft. Sam Houston, Texas										
Brooke Gen. Hospital	-	10	-	-	-	-	-	10	3	15
Med Fld Svc School BAMC	-	7	1	-	-	-	-	-	-	7
Surgical Rsch Unit, BAMC	-	24	9	-	-	-	-	2	-	98
Medical Svc Agency	-	1	-	-	1	1	-	-	1	9
Totals	-	42	10	-	1	1	-	12	4	129
23. Yuma Proving Ground, Ariz.										
Headquarters	-	-	6	7	64	5	3	1	13	111
Electronics PG Test Act	-	-	-	-	7	1	-	-	1	12
Army Metro Team	-	-	3	-	-	-	-	-	-	4
Totals	-	-	9	7	71	6	3	1	14	127
24. Dugway Proving Ground, Utah										
Headquarters	-	46	46	13	15	18	2	-	10	120

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
25. Ft. Knox, Ky.										
Armor Board	-	-	1	-	15	-	1	3	1	33
Med Rsch Lab	-	21	20	-	-	1	5	15	-	44
Armor Agency	-	-	1	-	11	4	1	3	4	25
Human Rsch Unit	-	-	-	-	2	-	-	14	-	18
Totals	-	21	22	-	28	5	7	35	5	120
26. Letterman General Hosp. San Francisco, Calif.	-	71	5	-	-	-	1	6	2	115
27. Hanover, N. H. Cold Regions R&E Lab.	-	3	4	37	52	1	17	-	3	110
28. St. Louis, Mo. Air & Surface Mat. Comd.	-	2	1	2	78	2	1	1	3	101
29. Pine Bluff Arsenal, Ark. Headquarters	-	35	4	-	24	5	-	-	-	91
30. Ft. McClellan, Ala.										
Chem-Bio-Rad. Agency	-	5	13	-	1	11	2	-	3	55
Chemical Ctr & School	-	1	4	6	-	1	4	5	7	34
Totals	-	6	17	6	1	12	6	5	10	89

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
31. Holloman AFB, New Mexico										
Telecomputing Service Inc.	-	-	-	-	24	34	3	-	1	64
Dynalectron Corp	-	-	-	-	17	-	4	-	-	24
Totals	-	-	-	-	41	34	7	-	1	88
32. Ft. Lewis, Washington										
Madigan Gen. Hospital	-	17	3	-	4	-	10	8	12	76
33. Ft. Benning, Ga.										
Infantry Board	-	-	-	-	-	-	-	-	-	5
Combat Oper. Rsch. Grp.	-	-	-	-	2	7	-	1	-	11
Infantry Agency	-	-	-	-	2	3	-	2	1	29
Human Rsch. Unit	-	-	-	-	-	5	-	30	1	20
Totals	-	-	-	-	4	15	-	33	2	65
34. Ft. Lee, Va.										
QM. Rsch & Engr.Fld. Eval. Agency	-	-	11	2	26	4	-	1	1	49
35. Med. Rsch & Nutrition Lab., Denver, Colo.										
Med. Rsch & Nutri. Lab.	-	27	14	-	-	1	-	-	-	43

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
36. Ft. Bliss, Texas										
Air Defense Bd.	-	-	-	2	5	2	1	1	-	10
Nuclear Group Hqs.	-	-	-	-	2	6	2	-	-	19
Air Defense Agency	-	-	-	-	4	4	-	-	1	12
Totals	-	-	-	2	11	12	3	1	1	41
37. Ft. Bragg, N. C.										
Airborne Elec. & Spec. Welfare Bd.	-	-	-	-	14	-	-	-	-	25
Special Warfare Agency	-	1	1	-	4	1	-	-	-	7
Totals	-	1	1	-	18	1	-	-	-	32
38. Ft. Douglas, Utah										
Desert Test Cntr.	-	4	8	1	5	1	-	2	3	31
39. Ohio River Div. Lab, Cinn., Ohio										
Ohio River Div. Lab	-	-	2	6	21	-	1	-	-	29
40. Army Research Office, Durham, N. C.										
Army Research Office	-	-	2	-	5	4	1	-	5	28
41. Ft. Ord, Calif.										
Combat Dev. Comd. Exper. Cntr.	-	-	-	-	8	15	-	-	1	26

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
42. Ft. Rucker, Ala.										
AVN Test Bd.	-	-	-	-	11	-	-	-	-	11
Aeromed Rsch Unit	-	2	-	-	-	-	-	-	1	2
Human Rsch Unit	-	-	-	-	-	1	-	6	-	11
Totals	-	2	-	-	11	1	-	6	1	24
43. Edwards AFB, Calif.										
AVN Test Activity	-	-	-	-	23	-	-	-	-	16
44. Ft. Totten, N. Y.										
Med. Equip. R&D Lab	-	-	2	-	12	2	-	-	-	16
45. Erie Proving Ground, Pt. Clinton, Ohio										
Headquarters	-	-	-	-	10	-	1	-	-	16
46. Ft. Gordon, Ga.										
Military Police Agency	-	-	-	-	-	-	-	-	2	5
Civil Affairs Agency	-	-	-	-	-	-	-	-	5	7
Totals	-	-	-	-	-	-	-	-	7	12
47. Electronics Mat'l. Agency Phila., Pa.										
Electronics Mat'l.Agency	-	-	-	-	6	-	-	-	-	8

TABLE 9.1 (Continued)

INSTALLATION	Discipline									No. of Personnel
	Astronomy	Biology	Chemistry	Earth Science	Engineering	Math & Statistics	Physics	Psychology	Social Science	
3. Valley Forge Gen. Hospital, Phoenixvle, Pa. Gen Hospital	-	1	-	-	-	-	-	-	-	1
TOTALS	9	1297	1683	458	7572	964	1477	262	370	13,474
ercentage of all assignments	0.1	9.2	11.9	3.3	53.6	6.9	10.5	1.9	2.6	

9.2 Tables of Users by Subject Field at Army Installations

The following tables present further information on user disciplines compiled from the TEL/TIPS Survey. For each of the disciplines practiced by the Army RDT&E community, data is provided which shows the number of assignments (based on 30% or more of a person's time) in each field for each installation. Figures are also shown for the total number of users in each subject field.

The data developed in this table has been used in preparing the geographic distribution of users presented in Section 11.0. The tables have also been used for comparing subject fields of users with Army installation function/missions (see Section 10.0). Additionally, this data will be correlated with the information on D&I holdings and existing data systems in the succeeding work units of EDIS Task I.

ASTRONOMY

INSTALLATION	Astrometry	Astrophysics	Celestial Mechanics	Cosmogony	Cosmology	Design of Astronomical Instruments	Navigation, Geodetic Astronomy	Photoelectric Photometry	Physics of Planets, Satellites	Physics of the Interstellar Medium	Physics of the Sun	Radio Astronomy	Spectroscopy of Astronomical Sources	Star Systems and Statistical Astronomy	Stellar Energy sources and Nucleogenesis	Astronomy, Other
1. Ft. Monmouth, N.J. Electronics R&D Labs					1											1
2. Aberdeen P.G., Md. Ballistics Research Lab																1
3. Harry Diamond Lab. Washington, D.C.											1					
4. Ft. Belvoir, Va. Engineering R&D Lab Engineering GIMRADA						2										1 1
5. Watertown Arsenal, Massachusetts Mat'l Research Ag.																
TOTALS					1	2					1					5

Table 9.2 DISTRIBUTION OF USERS IN FIELDS OF ASTRONOMY BY INSTALLATION

BIOLOGY

INSTALLATION	Anatomy	Bacteriology	Botany	Ecology	Entomology	Genetics	Hydrobiology	Immunology	Microbiology	Mycology	Nutrition & Metabolism	Parasitology	Pathology	Pharmacology	Physiology	Phytopathology	Virology	Zoology	Agronomy and Agrology	Animal Husbandry	Fish and Wildlife	Forestry and Range Science	Horticulture	Other Biological
1. Picatinny Arsenal, New Jersey																								
Munitions Comd. Hqs																								2
2. Ft. Monmouth, N.J.																								
Electronics R&D Lab									2				2						1					1
3. White Sands Missile Range																								
N. M. Headquarters			1							2														
4. Aberdeen P.G., Md.																								
Human Engr. Labs															1									
5. Edgewood Arsenal, Md																								
Headquarters		1																						4
Chemical R&D Lab	17	5						1	7				17	56	20									13
Environmental Hq. Agency													1	2										
6. Harry Diamond Lab																								
Washington, D.C.	3							1							5									
7. Ft. Belvoir																								
Engr. R&D Labs		1	2						3				1											1

Table 9.3 DISTRIBUTION OF USERS IN FIELDS OF BIOLOGY BY INSTALLATION

BIOLOGY INSTALLATION	Anatomy	Bacteriology	Botany	Ecology	Entomology	Genetics	Hydrobiology	Immunology	Microbiology	Mycology	Nutrition & Metabolism	Parasitology	Pathology	Pharmacology	Physiology	Phytopathology	Virology	Zoology	Agronomy and Agrology	Animal Husbandry	Fish and Wildlife	Forestry and Range Science	Horticulture	Other Biological Specialties
8. Frankford Arsenal																								
Philadelphia, Pa.										2			1								1			
9. Ft. Detrick, Md.																								
Biological Labs	2	37	12	1	15	14		24	65	4			8		2	16	77		3				1	129
Medical Unit	1							7	10				8				3			1				4
10. Walter Reed Gen Hosp																								
Walter Reed Gen Hosp	4												5		6									
Med R&D Comd. Hqs	1	1	1	1	1	1		1	1			1	2	1	3		1	1						2
Inst of Dental Rsch									3				4		1									1
Army Inst of Rsch	2	17		1	7	6		22	41	1	16	2	11	4	54		22	5	1	8				6
Prosthetic Rsch Lab																								1
Armed Forces Inst. Pathology	5							1					51				2			3				
Armed Forces Pest Control Board					3																			
11. Natick, Mass.																								
Natick Lab Hqs.		4	2		4				11	5					3									
Inst of Envir Med.								1					1		13									1
12. Detroit Arsenal, Warren, Michigan																								2
Tank & Auto Center									1															

Table 9.3 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF BIOLOGY BY INSTALLATION

BIOLOGY

INSTALLATION	Anatomy	Bacteriology	Botany	Ecology	Entomology	Genetics	Hydrobiology	Immunology	Microbiology	Mycology	Nutrition & Metabolism	Parasitology	Pathology	Pharmacology	Physiology	Phytopathology	Virology	Zoology	Agronomy and Agrology	Animal Husbandry	Fish and Wildlife	Forestry and Range Science	Horticulture	Other Biological Specialties
13. Ft. Huachuca, Ariz. Electronics P. G. Electronics R&D Act								1	1							1					4			1
14. Watertown Ars, Mass. Nat'l Rsch. Agency																								1
15. Engr Waterways Exper Station, Vicksburg, Mississippi													1						1					
16. Washington, D.C. AMC Headquarters Director of Army Research, OCRD																								3 1
17. Ft Sam Houston, Tex. Brooke Gen. Hosp.	5												1		4									
Med Field Service School, BAMC					1				2			1	1		2									
Surgical Research Unit, BAMC	1	4						3	7		1		3	2	3									
Med. Serv. Agency																								1
18. Dugway P. G., Utah Headquarters		2	1					8	6	2				1	1		4							21

Table 9.3 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF BIOLOGY BY INSTALLATION

BIOLOGY

INSTALLATION	Anatomy	Bacteriology	Botany	Ecology	Entomology	Genetics	Hydrobiology	Immunology	Microbiology	Mycology	Nutrition & Metabolism	Parasitology	Pathology	Pharmacology	Physiology	Phytopathology	Virology	Zoology	Agronomy and Agrology	Animal Husbandry	Fish and Wildlife	Forestry and Range Science	Horticulture	Other Biological Specialties
19. Ft. Knox, Kentucky Med. Research Lab	1							1	1				6	2	6									4
20. Presidio of San Francisco, Calif. Letterman Gen. Hosp		1										1	9	15	2									43
21. Hanover, N.H. Cold Regions R&D Lab					1																	2		
22. St. Louis, Missouri Air & Surface Material Command																1			1					
23. Pine Bluff Arsenal, Arkansas Headquarters		2							8															25
24. Ft. McClellan, Ala. Chemical-Bio-Rad Agency Chem. Ctr. & Sch.																								5
25. Ft. Lewis, Wash. Madigan Gen. Hosp.	2								1			1	1	1	6									1 5

Table 9.3 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF BIOLOGY BY INSTALLATION

BIOLOGY

INSTALLATION	Anatomy	Bacteriology	Botany	Ecology	Entomology	Genetics	Hydrobiology	Immunology	Microbiology	Mycology	Nutrition & Metabolism	Parasitology	Pathology	Pharmacology	Physiology	Phytopathology	Virology	Zoology	Agronomy and Agrology	Animal Husbandry	Fish and Wildlife	Forestry and Range Science	Horticulture	Other Biological Specialties
26. Med. Research & Nutrition Lab, Denver, Colorado Med. Research & Nutrition Lab									2		14		4		6					1				
27. Ft. Bragg, N. C. Special Warfare Ag.																								1
28. Ft. Douglas, Utah Desert Test Center		1		1					2															
29. Ft. Rucker, Ala. Aeromed Rsch. Unit															1									1
30. Valley Forge General Hospital, Phoenixville, Pennsylvania General Hospital																				1				
TOTALS	44	76	19	4	32	21		71	174	16	31	6	138	84	139	18	109	6	7	14	5	2	1	280

Table 9.3 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF BIOLOGY BY INSTALLATION

CHEMISTRY

INSTALLATION	Analytical Chemistry	Agriculture and Food Chemistry	Biochemistry	Inorganic Chemistry	Organic Chemistry	Physical Chemistry	Pharmaceutical Chemistry	Other Chemistry
1. Picatinny Arsenal, N.J.								
Munitions Comd. Hqs.	1		2		3			2
Headquarters	26			36	80	50		14
2. Ft. Monmouth, N. J.								
Electronics R&D Labs	5			15	4	57		
3. White Sands Msl Range, New Mexico								
Headquarters				1				3
Electronic R&D Activity	2					1		
4. Aberdeen P.G., Maryland								
Ballistics Rsch. Labs	8			5	16	15		
Coating & Chem. Labs	5				36	5		14
Headquarters								1
Limited War Labs					2	1		
5. Redstone Arsenal, Huntsville, Alabama								
Missile Command Hqs.	4			16	30	17		2
Missile Support Comd.	3		1	8	18	5		

Table 9.4 DISTRIBUTION OF USERS IN FIELDS OF CHEMISTRY BY INSTALLATION

CHEMISTRY INSTALLATION	Analytical Chemistry	Agriculture and Food Chemistry	Biochemistry	Inorganic Chemistry	Organic Chemistry	Physical Chemistry	Pharmaceutical Chemistry	Other Chemistry
6. Edgewood Arsenal, Md.								
Nuclear Defense Lab	6				1	9		
Headquarters						1	9	
Chemical R&D Labs	64		19	3	43	25	2	96
7. Harry Diamond Lab.								
Washington, D. C.	2	1		4	13	20		
8. Ft. Belvoir, Virginia								
Engineering R&D Labs	10				14	18		1
Engineering GIMRADA	1			1	1			
9. Frankford Arsenal,								
Philadelphia, Pa.	8			2	16	23		3
10. Ft. Detrick, Maryland								
Biological Labs	10	7	38	1	12	11		5
Medical Unit			2	1				
11. Walter Reed Gen Hosp.,								
Washington, D. C.								
Walter Reed Gen. Hosp.			1	1			1	
Inst of Dental Rsch.,								
AMC	1		1			1		
Army Inst. of Rsch.	16	1	59	1	21	4	4	
Prosthetics Rsch. Lab	1		1		14			
Armed Forces Inst. of								
Pathology	1		1		1	2		1

Table 9.4 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF CHEMISTRY BY INSTALLATION

CHEMISTRY INSTALLATION	Analytical Chemistry	Agriculture and Food Chemistry	Biochemistry	Inorganic Chemistry	Organic Chemistry	Physical Chemistry	Pharmaceutical Chemistry	Other Chemistry
12. Natick, Massachusetts								
Natick Lab Hqs.	29	35	9		83	26		2
Inst. of Envir. Med			4					
13. Detroit Arsenal, Warren, Michigan								
Tank and Auto Center	1				15	3		
14. Ft. Huachuca, Arizona								
Com-Elect. Agency	2			1				
15. Watertown Arsenal, Mass.								
National Rsch. Agency	12			3	5	19		
Headquarters					1			
16. Engr. Waterway Exper Sta								
Vicksburg, Mississippi	6			2	2			
17. Washington, D. C.								
AMC Headquarters				3	2	1		6
Dir of Army Rsch OCRD					2			
18. Watervliet Arsenal, N.Y.								
Headquarters	6					10		

Table 9.4 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF CHEMISTRY BY INSTALLATION

CHEMISTRY INSTALLATION	Analytical Chemistry	Agriculture and Food Chemistry	Biochemistry	Inorganic Chemistry	Organic Chemistry	Physical Chemistry	Pharmaceutical Chemistry	Other Chemistry
19. Rock Island Ars., Ill.								
Rock Island Arsenal	5				43	3[illegible]		1
20. Springfield Armory, Mass.								
Headquarters	1				1	2		
21. Ft. Sam Houston, Texas								
Med. Field Service School, BAMC			1					
Surgical Rsch Unit, BAMC			[illegible]					
22. Yuma P. G., Yuma, Ariz.								
Headquarters	1			1	3			1
Army Metro Team					3			
23. Dugway P. G., Utah								
Headquarters	4		8		3	2		29
24. Ft. Knox, Kentucky								
Armor Board						1		
Med. Rsch. Lab	1		19					
Armor Agency								1
25. Presidio of San Fran.								
Letterman Gen. Hosp.	2		3					
26. Hanover, New Hampshire								
Cold Regions R&E Lab.	1			1		2		

Table 9.4 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF CHEMISTRY BY INSTALLATION

CHEMISTRY INSTALLATION	Analytical Chemistry	Agriculture and Food Chemistry	Biochemistry	Inorganic Chemistry	Organic Chemistry	Physical Chemistry	Pharmaceutical Chemistry	Other Chemistry
27. St. Louis, Missouri Air & Surface Mat'l Command								1
28. Pine Bluff Ars., Ark. Headquarters	2		1					1
29. Ft. McClellan, Alabama Chem-Bio-Rad. Agency								13
Chemical Center & Sch.								4
30. Ft. Lewis, Washington Madigan General Hosp.			1	1	1			
31. Ft. Lee, Virginia QM Rsch & Engr. Field Eval. Agency	1	4			6			1
32. Med. Rsch & Nutrition Lab, Denver, Colorado Med. Rsch & Nutrition Lab	1		11		1			
33. Ft. Bragg, N. C. Special Warfare Agency								1

Table 9.4 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF CHEMISTRY BY INSTALLATION

CHEMISTRY INSTALLATION	Analytical Chemistry	Agriculture and Food Chemistry	Biochemistry	Inorganic Chemistry	Organic Chemistry	Physical Chemistry	Pharmaceutical Chemistry	Other Chemistry
34. Ft. Douglas, Utah Desert Test Center								8
35. Ohio River Division Lab Cincinnati, Ohio Ohio River Div. Lab				1	1			
36. Army Rsch Office, Durham, North Carolina Army Research Office					2			
37. Ft. Totten, New York Med. Equip. R&D Lab	2							
TOTALS	251	48	191	108	498	361	16	210

Table 9.4 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF CHEMISTRY BY INSTALLATION

EARTH SCIENCE INSTALLATION	Atmospheric Dynamics, Chemistry and Physics	Climatology	Meteorology	Area Specializations	Meteorological Instrumentation	Geochemistry	Geodesy	Geology	Paleontology and Paleobotany	Solid Earth Geophysics	Geography	Hydrology	Oceanography	Photogrammetry, Surveying, Cartography and Photo-interpretation
1. Picatinny Arsenal, N.J.														
Headquarters	2					1					1	1		1
2. Ft. Monmouth, N. J.														
Electronics Cmd. Hqs.														2
Electronics R&D Labs	12		13		16		1	1		6				6
Signal Radio Prop Agency	1													
3. White Sands Msl. Range New Mexico														
Headquarters	2		1											2
Electronics R&D Lab	35	1	6		1			1						1
4. Aberdeen P. G., Md.														
Ballistics Rsch. Labs	16			1			2				1			5
Limited War Labs								2						
5. Redstone Arsenal Huntsville, Alabama														
Msl. Cmd. Hqs.												1		
Missile Spt. Command	2	2												9
6. Edgewood Arsenal, Md.														
Nuclear Def. Lab	1		5		1									
Chem. R&D Labs	2					1								
7. Harry Diamond Labs														
Washington, D. C.	4				3			3		1				1

Table 9.5 DISTRIBUTION OF USERS IN FIELDS OF EARTH SCIENCE BY INSTALLATION

EARTH SCIENCE INSTALLATION	Atmospheric Dynamics, Chemistry and Physics	Climatology	Meteorology	Area Specializations	Meteorological Instrumentation	Geochemistry	Geodesy	Geology	Paleontology and Paleobotany	Solid Earth Geophysics	Geography	Hydrology	Oceanography	Photogrammetry, Surveying, Cartography and Photo-interpretation
8. Ft. Belvoir, Va.														
Engr. R&D Labs	1					1	2							3
Engr. GIMRADA							12				2			46
9. Frankford Arsenal, Phila., Pa.												2		1
10. Ft. Det[illegible]ck, Md.														
Biolo[illegible]al Labs	4												2	
11. Natick, Massachusetts														
Natick Lab Hqs.		10						2			5			8
12. Detroit Arsenal Warren, Mich.														
Tank and Auto Ctr.						1					2			
13. Ft. Huachuca, Ariz.														
Electronics P. G.	5											1		6
Electronics R&D Activity	1		27									1		
Com-Elect. Agency			1											
14. Watertown Arsenal, Massachusetts														
Mat. Rsch. Agency						1								1

Table 9.5 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF EARTH SCIENCE BY INSTALLATION

EARTH SCIENCE INSTALLATION	Atmospheric Dynamics, Chemistry and Physics	Climatology	Meteorology	Area Specializations	Meteorological Instrumentation	Geochemistry	Geodesy	Geology	Paleontology and Paleobotany	Solid Earth Geophysics	Geography	Hydrology	Oceanography	Photogrammetry, Surveying, Cartography and Photo-interpretation
15. Engr. Waterway Exper Station Vicksburg, Mass.		1					2	15		6	3	2		2
16. Washington, D. C. AMC Hqs.			2									1		
Dir. of Army Rsch.											1			
17. Watervliet Arsenal New York Headquarters	1													
18. Yuma P. G., Ariz. Headquarters							3							4
19. Dugway P. G., Utah Headquarters	13													
20. Hanover, N. H. Cold Regions R&E Lab	3	1	1			1		2		1	1	16	1	10

Table 9.5 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF EARTH SCIENCE BY INSTALLATION

EARTH SCIENCE INSTALLATION	Atmospheric Dynamics, Chemistry and Physics	Climatology	Meteorology	Area Specializations	Meteorological Instrumentation	Geochemistry	Geodesy	Geology	Paleontology and Paleobotany	Solid Earth Geophysics	Geography	Hydrology	Oceanography	Photogrammetry, Surveying, Cartography and Photo-Interpretation
21. St. Louis, Mo. Air & Surface Matl. Cmd.						1						1		
22. Ft. McClellan, Ala. Chem. Ctr. & Sch.	2		2								1			1
23. Ft. Lee, Va. QM Rsch. & Engr. Fld. Eval. Agency	1	1												
24. Ft. Bliss, Texas Air Defense Bd.			1					1						
25. Ft. Douglas, Utah Desert Test Ctr.	1													
26. Ohio River Dev. Lab Cin., Ohio Ohio River Dev. Lab								3	2	1				
TOTALS	109	16	59	1	21	7	22	30	2	15	17	26	3	110

Table 9.5 (Cont.) LISTRIBUTION OF USERS IN FIELDS OF EARTH SCIENCE BY INSTALLATION

ENGINEERING

INSTALLATION	Aeronautical Engr.	Agricultural Engr.	Architectural Engr.	Ceramic Engineering	Chemical Engr.	Civil Engineering	Construction Engr.	Electrical Engr.	Electronics Engr.	Engineering Mechanics	Hydraulic Engr.	Industrial Engr.	Internal Combustion Power Plant Engr.	Marine Engineering	Materials Engr.	Mechanical Engr.	Metallurgy and Metallurgical Engr.	Mining and Petroleum Engineering	Sanitary Engr.	Structural Engr.	Valuation Engr.	Other Engineering
1. Picatinny Ars., N.J.																						
Munitions Cmd. Hqs.												7										23
Headquarters	42			3	17		3	12	144	22		244	42	1	16	87	19	1	2	1		597
Sp. Proj. Sel. Ammo.									1			1										4
2. Ft. Monmouth, N. J.																						
Satellite Cmd. Agcy.									47			3				1						1
Electronics Cmd.Hqs.								3	16			3										1
U.S.Army Patent Agcy									1													
Electronics R&D Labs	17	4	3		15	3		35	811	1		34			4	66	1			1		30
Sp. Proj. AACOMS									2			1				1						
Sp. Proj. AN/VRC-12									4			3										1
Sp. Proj. MQM-58A	2								5			1										
Sp. Proj. Radas									5													
Sp. Proj. Unicom-Starcom.									2													
Signal Radio Prop. Agency							1		8													1
3. White Sands Msl. Range, N. M.																						
Headquarters	21		1		1	1		4	327	2	1	26	5			9					1	54
Electronics R&D Act.	2							1	152			1				7						6

Table 9.6 DISTRIBUTION OF USERS IN FIELDS OF ENGINEERING BY INSTALLATION

ENGINEERING INSTALLATION	Aeronautical Engr.	Agricultural Engr.	Architectural Engr.	Ceramic Engineering	Chemical Engr.	Civil Engineering	Construction Engr.	Electrical Engr.	Electronics Engr.	Engineering Mechanics	Hydraulic Engr.	Industrial Engr.	Internal Combustion Power Plant Engr.	Marine Engineering	Materials Engr.	Mechanical Engr.	Metallurgy and Metallurgical Engr.	Mining and Petroleum Engineering	Sanitary Engr.	Structural Engr.	Valuation Engr.	Other Engineering
4. Aberdeen P.G., Md.																						
Ballistics Rsch.Labs.	16		1		4	3		2	58	16		1	2			9	6		2	1		15
Human Engr. Labs.	2		3				1	1	10			1				3	3					30
Coating & Chem. Labs.					1												1					
Test & Eval.Cmd.Hqs.	4					1		2	7	2		4				5				1		13
Headquarters	1		40					2	21	3		7	9		2	37						91
Limited War Labs.					1				5							4						6
Ordnance Agency																						1
5. Redstone Arsenal, Huntsville, Ala.																						
Missile Cmd. Hqs.	32	1	1	1	11	1		7	62	15		43	40		1	20	6				1	42
Missile Spt. Cmd.	34				5			9	84	7		16	17		2	11	3	1				17
6. Edgewood Arsenal, Md.																						
Nuclear Defense Lab.					1				3			1				1						5
Headquarters					12							8				4	2					18
Chem. R&D Labs.	3				29		1	1	13	1		6			2	10				1	1	32
Envir. Hyg. Agency									1										3			
7. Harry Diamond Lab., Washington, D. C.	6		1	3	3	1	1	3	282	17		32	2		2	29	2	1			1	46
8. Fort Belvoir, Va.																						
Engr. R&D Labs.			11		9	21	5	49	23	5	2	40	8	6	5	89	6	2	5	6	1	43
Engr. GIMRADA						2		1	14							1						2
Combat Dev. Cmd. Hqs.												1										
9. Frankford Ars., Phila., Pa.	4				3	1		3	67	3		26			7	48	61			1		112

Table 9.6 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF ENGINEERING BY INSTALLATION

ENGINEERING

INSTALLATION	Aeronautical Engr.	Agricultural Engr.	Architectural Engr.	Ceramic Engineering	Chemical Engr.	Civil Engineering	Construction Engr.	Electrical Engr.	Electronics Engr.	Engineering Mechanics	Hydraulic Engr.	Industrial Engr.	Internal Combustion Power Plant Engr.	Marine Engineering	Materials Engr.	Mechanical Engr.	Metallurgy and Metallurgical Engr.	Mining and Petroleum Engineering	Sanitary Engr.	Structural Engr.	Valuation Engr.	Other Engineering
10. Ft. Detrick, Md.																						
Biological Labs.	2				8			1	7	2		1				4			1			20
11. Walter Reed General Hospital, Wash., D.C																	1					
Regional Dental Act																			1			
Med. R&D Cmd. Hqs.																1						2
Army Inst.of Rsch.									6													
Prosthetics Rsch.Lab.					1										2	4						9
12. Natick, Mass.																						
Natick Lab. Hqs.	1			1	7				1	7		16			2	62				2		53
13. Detroit Arsenal, Warren, Michigan																						
Mobility Cmd. Hqs.	1		1							1						3						
Tank & Auto Center			191		1	4		13	16	11	2	35	5	1	16	87	7				1	49
14. Ft. Huachuca, Ariz.																						
Sys.Des.& Engr.Div.									13													
Electronics Pvg. Gr	5							8	68									1				5
Electronics R&D Act								2	36			1										1
Project. Agency									4													
15. Watertown Ars., Mass.																						
Nat'l. Rsch. Agency	3			5	2			1	5	27	3	6			11	13	51		1			8
Headquarters	2									2		7			1	6	1					41
16. Engr.Waterways Exper. Station, Vicksburg, Miss.	1			2		94	5		22	22	30	8			7	2	1			5		10

Table 9.6 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF ENGINEERING BY INSTALLATION

ENGINEERING

INSTALLATION	Aeronautical Engr.	Agricultural Engr.	Architectural Engr.	Ceramic Engineering	Chemical Engr.	Civil Engineering	Construction Engr.	Electrical Engr.	Electronics Engr.	Engineering Mechanics	Hydraulic Engr.	Industrial Engr.	Internal Combustion Power Plant Engr.	Marine Engineering	Materials Engr.	Mechanical Engr.	Metallurgy and Metallurgical Engr.	Mining and Petroleum Engineering	Sanitary Engr.	Structural Engr.	Valuation Engr.	Other Engineering
17. Washington, D. C.																						
AMC Hqs.	6		6					2	21			3	5		2	5	3					25
Sp.Proj.Acft.Weapnzn.																						1
Sp.Proj.Chinook	4																					
Sp.Proj.Iroquois	1																					
Sp.Proj.Loh	1												1									
Dir.of Army Rsch. OCRD	2					1			1													
18. Watervliet Ars., N.Y.																						
Headquarters		1			1			2	5	19		5			1	29	14					79
19. Rock Island Ars., Ill.																						
Weapons Cmd. Hqs.			9									4				1						15
Rock Island Ars.			2						3	6		1				20	6					46
20. Ft. Eustis, Va.																						
Trans. Rsch. Cmd.	75					1	1	2	12	2		1	3			5						
Trans. Board			1													2				1		1
Trans. Agency			1																			
21. Springfield Armory, Massachusetts																						
Headquarters								7	2	7		6				15	10					83
22. Ft. Sam Houston, Tex.																						
Medical Soc. Agency															1							
23. Yuma P.G., Arizona																						
Headquarters	1		5						11	2		5	1			16					2	21
Electronics P.G.Act.									6													

Table 9.6 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF ENGINEERING BY INSTALLATION

ENGINEERING INSTALLATION	Aeronautical Engr.	Agricultural Engr.	Architectural Engr.	Ceramic Engineering	Chemical Engr.	Civil Engineering	Construction Engr.	Electrical Engr.	Electronics Engr.	Engineering Mechanics	Hydraulic Engr.	Industrial Engr.	Internal Combustion Power Plant Engr.	Marine Engineering	Materials Engr.	Mechanical Engr.	Metallurgy and Metallurgical Engr.	Mining and Petroleum Engineering	Sanitary Engr.	Structural Engr.	Valuation Engr.	Other Engineering
24. Dugway P.G., Utah																						
Headquarters				1		1		1	2	1		6				2						1
25. Fort Knox, Ky.																						
Armor Board			7													4						4
Armor Agency	1		9						1													
Human Rsch. Unit								1	1													
26. Hanover, N. H.																						
Cold Regions R&D Lab.	1		1			21		1	9	7					2	5				3		2
27. St. Louis, Mo.																						
Air & Surf. Mat.Cmd.	48							6	3			3	4	2		6	1					5
28. Pine Bluff Ars., Ark.																						
Headquarters			1		2			3	2			10				5						1
29. Ft. McClellan, Ala.																						
Chem.Bio.Rad.Agency					1																	
30. Holloman AFB, N.M.																						
Telecomputing Soc.Inc.									23													1
Dynalectron Corp.								4	11							2						
31. Ft. Lewis, Wash.																						
Madigan Gen. Hosp.																						4
32. Ft. Benning, Ga.																						
Combat Oper.Rsch.Grp.												2										
Infantry Agency									1													1
33. Ft. Lee, Va.																						
QM Rsch. & Engr.Field																						
Eval. Agency			1									4				11				1		9

Table 9.6 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF ENGINEERING BY INSTALLATION

ENGINEERING INSTALLATION	Aeronautical Engr.	Agricultural Engr.	Architectural Engr.	Ceramic Engineering	Chemical Engr.	Civil Engineering	Construction Engr.	Electrical Engr.	Electronics Engr.	Engineering Mechanics	Hydraulic Engr.	Industrial Engr.	Internal Combustion Power Plant Engr.	Marine Engineering	Materials Engr.	Mechanical Engr.	Metallurgy and Metallurgical Engr.	Mining and Petroleum Engineering	Sanitary Engr.	Structural Engr.	Valuation Engr.	Other Engineering
34. Ft. Bliss, Texas									5													
Air Defense Bd.																						2
Nuclear Grp. Hqs.									3		1											
Air Defense Agency																						
35. Ft. Bragg, N. C.																						
Airborne Elec. &	3								10			1										
Spec. Warfare Bd.			1						2							1						
Spec. Warfare Agency																						
36. Ft. Douglas, Utah																						
Desert Test Center					1							1				2						1
37. Cincinnati, Ohio																						
Ohio River Div. Lab.	1					12			2	1		1			2	1				1		
38. Army Rsch. Office																						
Durham, N. C.	1								1								2					1
39. Ft. Ord, Calif.																						
Comdt. Dev. Cnd.																						
Exper. Ctr.									4			3										1
40. Ft. Rucker, Ala.																						
Avn. Test Bd.	7							1	3													
41. Edwards AFB, Calif.																						
Avn. Test Activity	23																					
42. Ft. Totten, N. Y.																						
Med.Equip.R&D Lab.								1	2							7						2

Table 9.6 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF ENGINEERING BY INSTALLATION

ENGINEERING INSTALLATION	Aeronautical Engr.	Agricultural Engr.	Architectural Engr.	Ceramic Engineering	Chemical Engr.	Civil Engineering	Construction Engr.	Electrical Engr.	Electronics Engr.	Engineering Mechanics	Hydraulic Engr.	Industrial Engr.	Internal Combustion Power Plant Engr.	Marine Engineering	Materials Engr.	Mechanical Engr.	Metallurgy and Metallurgical Engr.	Mining and Petroleum Engineering	Sanitary Engr.	Structural Engr.	Valuation Engr.	Other Engineering
43. Erie P.G., Pt. Clinton, Ohio Headquarters			1						6							1						2
44. Philadelphia, Pa. Electronics Nat'l. Agency									2			4										
TOTALS	376	6	296	16	136	168	18	191	2506	211	38	645	144	10	88	764	197	6	25	25	8	1698

Table 9.6 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF ENGINEERING BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
1. Picatinny Arsenal, New Jersey											
Munitions Cmd. Hqs.										2	
Headquarters					28		26		8	22	
2. Ft. Monmouth, N. J.											
Satellite Cmd. Agency							1			1	
Electronics Cmd.Hqs.					1						
Electronics R&D Labs	1	10		2	1		32		2	6	
Sp. Proj. AACOMS					1						
Sp. Proj. Radas										1	
Sp. Proj. Unicon-Stercom										1	
Signal Radio Prop. Agency	1		1				4	1	1		
3. White Sands Msl.Range New Mexico											
Headquarters	2	6			52		64	1	2	29	2
Electronics R&D Act.		2				1	24		3	4	

Table 9.7 DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
4. Aberdeen P.G., Md.											
Ballistics Rsch.Lab	1		1		34		48		2	22	
Human Engr. Lab										3	
Test & Eval. Comd. Hqs.					5				1		
Headquarters					2					1	
Limited War Labs					7						
5. Redstone Ars.Huntsville, Ala.											
Missile Cmd. Hqs.					11		3	1		2	
Missile Spt. Cmd.	1	3	1		14		9		1	2	1
6. Edgewood Ars., Md.											
Nuclear Defense Lab	1								1		1
Headquarters					15		4			1	
Chemical R&D Labs		2			18		8		7	11	
7. Harry Diamond Lab											
Washington, D. C.		4		3	3	2	15	1	2	3	

Table 9.7 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
8. Ft. Belvoir, Va.											
Engr. R&D Labs		1					6			3	
Engr. GIMRADA							3				
Combat Dev Cmd Hqs				1	26		2			1	
Army Management School							1				
9. Frankford Ars, Phila, Pa.		2			5		11	2		3	
10. Ft. Detrick, Md.											
Biological Labs	1			1	5		4		3	13	
11. Walter Reed Gen.Hosp.											
Army Inst. of Rsch.					1					1	
Armed Forces Inst. of Path.							1				
12. Natick, Mass.											
Natick Lab Hqs.		1					1	1		5	
Inst. of Envir. Med.					1						

Table 9.7 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
13. Detroit Ars. Warren, Mich.											
Tank & Auto Ctr.							4	1	2	5	1
14. Ft. Huachuca, Ariz.											
Sys. Design & Engr. Div.							1				
Electronics Proving Gd.					1		4			7	1
SCIS Group					2						
Com-Elect. Agency					1		1			1	
15. Watertown Ars., Mass.											
Mat'l. Rsch Agency		2					4			2	
16. Vicksburg, Miss.											
Engr. Waterway Expr Sta.			1				9			7	1
17. Washington, D. C.											
AMC Hqs.					5	1					
Dir. of Army Rsch OCRD					2					1	1

Table 9.7 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
18. Watervliet Ars., N.Y.											
Headquarters	2	12	1		1		3				
19. Rock Island Ars., Ill.											
Weapons Cmd. Hqs.					2						
Rock Island Ars.					1		2				
20. Ft. Eustis, Va.											
Transportation Rsch Cmd.					1		5				
Transportation Agency					1						
21. Springfield Armory, Spfd, Mass.											
Headquarters					2				1	2	1
22. Ft. Sam Houston, Tex.											
Med. Svc. Agency					1						
23. Yuma P.G., Ariz.											
Headquarters										4	1
Electronics P.G. Test Act.										1	

Table 9.7 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
24. Dugway P.G., Utah Headquarters					4		3			10	1
25. Ft. Knox, Ky. Med. Rsch. Lab										1	
Armor Agency					4						
26. Hanover, N. H. Cold Regions R&E Lab										1	
27. St. Louis, Mo. Air & Surface Mat. Cmd.						1			1		
28. Pine Bluff Ars., Ark Headquarters					2					3	
29. Ft. McClellan, Ala. Chem-Bio-Rad Agency					9					2	
Chem Ctr and School							1				
30. Holloman AFB, N. M. Telecomputing Svc. Inc.	5				4		18			7	

Table 9.7 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
31. Ft. Benning, Ga.											
Combat Oper. Rsch. Gp.					2		1			4	
Infantry Agency					3						
Human Rsch. Unit									2	3	
32. Ft. Lee, Va.											
QM Rsch.&Engr. Field Eval. Agency										4	
33. Denver, Col.											
Med. Rsch & Nutrition Lab							1				
34. Ft. Bliss, Texas											
Air Defense Bd.				1			1				
Nuclear Group Hqs.					5		1				
Air Defense Agency					3		1				
35. Ft. Bragg, N. C.											
Special Warfare Agency					1						

Table 9.7 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

MATHEMATICS & STATISTICS

INSTALLATION	Algebra	Analysis and Functional Analysis	Geometry	Logic	Mathematics of Resource Use	Number Theory	Numerical Methods and Computation	Topology	Probability	Statistics	Other
36. Ft. Douglas, Utah Desert Test Ctr.					1						
37. Durham, N. C. Army Rsch. Office					2		1		1		
38. Ft. Ord, Calif. Combat Dev. Cmd. Exper Ctr.					8				1	6	
39. Ft. Rucker, Ala. Human Rsch. Unit										1	
40. Ft. Totten, N. Y. Med. Equip. R&D Lab			1	1							
TOTALS	15	45	6	9	298	5	328	8	41	209	

Table 9.7 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF MATHEMATICS & STATISTICS BY INSTALLATION

PHYSICS

INSTALLATION	Acoustics	Atomic and Molecular Physics	Electromagnetic Waves and Electron Physics	Elementary Particle Physics	Mechanics	Nuclear Structure Physics	Optics	Solid State	Thermal Phenomena	Theoretical Physics	Biophysics	Physics of Fluids	Other Physics
1. Picatinny Ars., N.J.													
Headquarters	2	4	18	2	8	2	20	16	3	1		4	24
2. Ft. Monmouth, N. J.													
Electronics Cmd Hqs							2						
US Army Patent Agency			1										
Electronics R&D Labs	15	7	103	2	6	5	37	90	11	2	1	3	3
Sigral Radio Prop Agency			15										
3. White Sands Msl Range, New Mexico													
Headquarters	4		24		8	5	10	2	2	1	5		7
Electronics R&D Act	4	14			1	1	22		1			2	24
4. Aberdeen P.G., Md.													
Ballistics Rsch Lab	1		9		15	7	15	7	3	3		29	37
Human Engr. Labs	11		1								1	1	
Test & Eval Cmd Hqs Headquarters	3		3			1	3		1		1		4
Limited War Labs	1		2										

Table 9.8 DISTRIBUTION OF USERS IN FIELDS OF PHYSICS BY INSTALLATION

PHYSICS INSTALLATION	Acoustics	Atomic and Molecular Physics	Electromagnetic Waves and Electron Physics	Elementary Particle Physics	Mechanics	Nuclear Structure Physics	Optics	Solid State	Thermal Phenomena	Theoretical Physics	Biophysics	Physics of Fluids	Other Physics
5. Redstone Arsenal Huntsville, Ala.													
Missile Cmd Hqs		4	7		3	1	8		2			5	2
Missile Spt Cmd	3	3	10		12	4	12	1		1		4	5
6. Edgewood Ars, Md.													
Nuclear Defense Lab		1		1	1	18	1	6					
Chemical R&D Lab		1	4		1		14	1	3	2	2	1	18
Envir. Hyg. Agency			1										
7. Harry Diamond Labs Washington, D. C.	6	2	36		5	2	10	43	1	3	1	12	3
8. Ft. Belvoir, Va.													
Engr. R&D Labs	2	4	13		1		25	28	6		1	3	
Engr. GIMRADA			2				2						1
9. Frankford Ars. Phila., Pa.	4	3	23		3	4	29	14				2	20
10. Ft. Detrick, Md.													
Biological Labs			1		1		3	1	1		6		1

Table 9.8 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PHYSICS BY INSTALLATION

PHYSICS

INSTALLATION	Acoustics	Atomic and Molecular Physics	Electromagnetic Waves and Electron Physics	Elementary Particle Physics	Mechanics	Nuclear Structure Physics	Optics	Solid State	Thermal Phenomena	Theoretical Physics	Biophysics	Physics of Fluids	Other Physics
11. Walter Reed Gen Hosp Washington, D. C.													
Walter Reed Gen Hosp.		1				2							
Med. R&D Cmd Hqs.													1
Inst. of Dental RSC											1		
Army Inst of Research		2	1			8	1				13		
Armed Forces Inst. of Path						1					3		
12. Natick, Mass.													
Natick Lab Hqs.	2	2	2		4	7	5	1	4		3	3	2
Inst. of Envir. Med									2		1		
13. Detroit Ars, Warren, Mich.													
Tank & Auto Center		3		2	1		6	3					1
14. Ft. Huachuca, Ariz.													
Electronics P. G.			2				3						1
Electronics R&D Act			1			1							

Table 9.8 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PHYSICS BY INSTALLATION

PHYSICS

INSTALLATION	Acoustics	Atomic and Molecular Physics	Electromagnetic Waves and Electron Physics	Elementary Particle Physics	Mechanics	Nuclear Structure Physics	Optics	Solid State	Thermal Phenomena	Theoretical Physics	Biophysics	Physics of Fluids	Other Physics
15. Watertown Ars., Mass													
Matl Research Agency	2	2	3		1	10	4	14	2		4		3
16. Engr. Waterways Exper. Sta.													
Vicksburg, Miss.	4		4	1	2	1	1		1			5	1
17. Washington, D. C.													
AMC Hqs.		1	11		1			15					3
Dir. of Army Rsch, OCRD													1
18. Watervliet Ars., N.Y.													
Headquarters	2	1			4		1	7	1	1			2
19. Rock Island Ars, Ill.													
Rock Island Ars.	1		1		1								
20. Ft. Eustis, Va.													
Transportation Rsch Cmd.			1		1								

Table 9.8 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PHYSICS BY INSTALLATION

PHYSICS

INSTALLATION	Acoustics	Atomic and Molecular Physics	Electromagnetic Waves and Electron Physics	Elementary Particle Physics	Mechanics	Nuclear Structure Physics	Optics	Solid State	Thermal Phenomena	Theoretical Physics	Biophysics	Physics of Fluids	Other Physics
21. Springfield Armory, Spfd., Mass. Headquarters					3		1						1
22. Yuma P. G., Ariz. Headquarters					1								2
23. Dugway P. G. Utah Headquarters				1			1						
24. Ft. Knox, Ky. Armor Board Med. Rsch. Lab Armor Agency	1		3				1				2		
25. Presidio of San Francisco, Calif. Letterman Gen Hosp.							1						
26. Hanover, N. H. Cold Regions R&E Lab.		1	1		5	1	2	3			1	2	1

Table 9.8 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PHYSICS BY INSTALLATION

PHYSICS INSTALLATION	Acoustics	Atomic and Molecular Physics	Electromagnetic Waves and Electron Physics	Elementary Particle Physics	Mechanics	Nuclear Structure Physics	Optics	Solid State	Thermal Phenomena	Theoretical Physics	Biophysics	Physics of Fluids	Other Physics
27. St. Louis, Mo.													
Air & Surface Mat. Cmd.							1						
28. Ft. McClellan, Ala.													
Chem-Bio-Rad Agency						2							
Chem Ctr & School						1		1			1		1
29. Holloman AFB, N. M.													
Tele. Computing Svc Inc.							3						
Dyalectron Corp.							4						
30. Ft. Lewis, Wash.													
Madigan Gen. Hosp		2	1		1	1	4		1				
31. Ft. Bliss, Texas													
Air Defense Bd.					1								
Nuclear Group Hqs.						1							1
32. Cincinnati, Ohio													
Ohio River Div.Lab.					1								

Table 9.8 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PHYSICS BY INSTALLATION

PHYSICS

INSTALLATION	Acoustics	Atomic and Molecular Physics	Electromagnetic Waves and Electron Physics	Elementary Particle Physics	Mechanics	Nuclear Structure Physics	Optics	Solid State	Thermal Phenomena	Theoretical Physics	Biophysics	Physics of Fluids	Other Physics
33. Durham, N. C. Army Research Office								1					
34. Erie P. G., Pt. Clinton, Ohio Headquarters			1										
TOTALS	68	58	305	9	92	86	252	254	45	14	48	76	170

Table 9.8 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PHYSICS BY INSTALLATION

PSYCHOLOGY INSTALLATION	Clinical Psychology	Counseling and Guidance	Developmental Psychology	Educational Psyc.	General Psychology	Industrial and Personnel Psychology	Personality	Programmed Learning	School Psychology	Social Psychology	Experimental, Comparative, and Physiological Psychology
1. Picatinny Ars, N.J.											
Headquarters				1		10				3	3
2. Ft. Monmouth, N.J.											
Sp. Proj. MQM-58A						1					
3. White Sands Msl. Range, N. M.											
Headquarters						4		2		3	1
4. Aberdeen P. G. Md.											
Ballistics Rsch Lab						1					
Human Engr. Lab						1					19
5. Edgewood Ars, Md.											
Nuclear Defense Lab					1						
Chemical R&D Lab							1				16
6. Harry Diamond Lab											
Washington, D. C.	1		1		3					1	2

Table 9.9 DISTRIBUTION OF USERS IN FIELDS OF PSYCHOLOGY BY INSTALLATION

PSYCHOLOGY INSTALLATION	Clinical Psychology	Counseling and Guidance	Developmental Psychology	Educational Psyc.	General Psychology	Industrial and Personnel Psychology	Personality	Programmed Learning	School Psychology	Social Psychology	Experimental, Comparative, and Physiological Psychology
7. Ft. Belvoir, Va.											
Engr. R&D Labs	1					2	1				1
Engr. Ctr & Sch.				2						1	
8. Frankford Ars, Phila., Pa.							1			1	6
9. Ft. Detrick, Md.											
Biological Labs										1	
10. Walter Reed Gen. Hosp., Wash., D.C.											
Walter Reed Gen. Hosp.	1										
Army Inst. of Rsch	2		2							4	12
Armed Forces Inst of Path										1	
11. Natick, Mass.											
Natick Lab Hqs.											4
Inst. of Envir. Med.					1	1	2				4

Table 9.9 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PSYCHOLOGY BY INSTALLATION

PSYCHOLOGY INSTALLATION	Clinical Psychology	Counseling and Guidance	Developmental Psychology	Educational Psyc.	General Psychology	Industrial and Personnel Psychology	Personality	Programmed Learning	School Psychology	Social Psychology	Experimental, Comparative, and Physiological Psychology
12. Detroit Ars. Warren, Mich											
Tank & Auto Ctr.			1							2	
13. Ft. Huachuca, Ariz.											
Electronic P. G.						1				3	1
Com-Elect Agency										1	
14. Watertown Ars, Mass											
Matl. Research Agency											1
15. Engr. Waterways Exper. Sta. Vicksburg, Miss.		1			1						
16. Washington, D. C.											
AMC Hqs.						2				1	
Dir. of Army Rsch OCRD					1	1	1			2	1
17. Watervliet Ars, N.Y.											
Headquarters											3

Table 9.9 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PSYCHOLOGY BY INSTALLATION

PSYCHOLOGY

INSTALLATION	Clinical Psychology	Counseling and Guidance	Developmental Psychology	Educational Psyc.	General Psychology	Industrial and Personnel Psychology	Personality	Programmed Learning	School Psychology	Social Psychology	Experimental, Comparative, and Physiological Psychology
18. Rock Island Ars, Ill.											
Rock Island Ars.						1					
19. Ft. Sam Houston, Texas											
Brooke Gen. Hosp	1	1		1	2					2	3
Surgical Rsch Unit											2
20. Yuma P. G., Ariz.											
Headquarters										1	
21. Ft. Knox, Ky.											
Armor Bd.						2				1	
Med. Rsch. Lab											15
Armor Agency										2	1
Human Rsch. Unit										3	11
22. Presidio of San Francisco, Calif.											
Letterman Gen. Hosp.	3		2				1				

Table 9.9 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PSYCHOLOGY BY INSTALLATION

PSYCHOLOGY INSTALLATION	Clinical Psychology	Counseling and Guidance	Developmental Psychology	Educational Psyc.	General Psychology	Industrial and Personnel Psychology	Personality	Programmed Learning	School Psychology	Social Psychology	Experimental, Comparative, and Physiological Psychology
23. St. Louis, Mo.											
Air & Surface Mat. Cmd.					1						
24. Ft. McClellan, Ala.											
Chem, Ctr. & Sch.	2			2				1			
25. Ft. Lewis, Wash.											
Madigan Gen Hosp	2	4			1		1				
26. Ft. Benning, Ga.											
Combat Oper. Rsch. Group						1					
Infantry Agency										2	
Human Rsch. Unit						6		1		16	7
27. Ft. Lee, Va.											
QM Rsch. & Engr Fld.Eval. Agency											1
28. Ft. Bliss, Texas											
Air Defense Bd.			1								

Table 9.9 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PSYCHOLOGY BY INSTALLATION

PSYCHOLOGY

INSTALLATION	Clinical Psychology	Counseling and Guidance	Developmental Psychology	Educational Psyc.	General Psychology	Industrial and Personnel Psychology	Personality	Programmed Learning	School Psychology	Social Psychology	Experimental, Comparative, and Physiological Psychology
29. Ft. Douglas, Utah Desert Test Ctr.						1				1	
30. Ft. Rucker, Ala. Human Rsch. Unit											6
TOTAL	13	6	7	6	11	35	8	4		52	120

Table 9.9 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF PSYCHOLOGY BY INSTALLATION

SOCIAL SCIENCE

INSTALLATION	Archeology	Area Studies	Business Adm.	Business and Commerce	Economics	Education	Fine and Applied Arts	History	History of Science and Mathematics	Home Economics	Int. Relations	Journalism	Law Jurisprudence	Library and Archival Sci.	Music	Patent Law	Philosophy of Science	Political Science	Public Administration	Religion and Theology	Sociology	Speech	Anthropology	Scientific and Technical Documentation	Demography	Industrial Hygiene and Occupational Health	Other
1. Picatinny Ars., N. J.																											
Munitions Cmd. Hqs.																								2			
Headquarters			1									1		4										18		1	2
2. Ft. Monmouth, N. J.																											
Satellite Cmd. Agency			1									1												1			2
U.S. Army Patent Agency																3											
Elect. R&D Labs			2									1												6			2
Sp. Proj. MQM-58A																								1			
Sp. Proj. Radas			1																					1			
3. White Sands Msl Range, N. M.																											
Headquarters			2																					7		1	
Elect. R&D Labs			2																					5			
4. Aberdeen P.G. Md.																											
Ballistics Rsch Lab																								2			
Human Engr. Labs							1										1										
Test & Eval Cmd Hqs			1																								
Headquarters												1															1
Limited War Labs							1																				1
Ordnance Agency																											1

Table 9.10 DISTRIBUTION OF USERS IN FIELDS OF SOCIAL SCIENCE BY INSTALLATION

SOCIAL SCIENCE

INSTALLATION	Archeology	Area Studies	Business Adm.	Business and Commerce	Economics	Education	Fine and Applied Arts	History	History of Science and Mathematics	Home Economics	Int. Relations	Journalism	Law Jurisprudence	Library and Archival Sci.	Music	Patent Law	Philosophy of Science	Political Science	Public Administration	Religion and Theology	Sociology	Speech	Anthropology	Scientific and Technical Documentation	Demography	Industrial Hygiene and Occupational Health	Other
5. Redstone Ars., Huntsville, Ala.																											
Missile Cmd. Hqs.			3																					7			
Missile Spt. Cmd.																								1			
6. Edgewood Ars., Md.																											
Nuclear Def. Lab	1																							2			
Headquarters			1									1												4			1
Chem. R&D Labs												2		1										7			2
Envir. Hyg. Agency																										3	
7. Harry Diamond Labs																											
Washington, D. C.			2													1			1					2			
8. Pt. Belvoir, Va.																											
Engr. R&D Labs																											1
Engr. GIMRADA			1																					1			
Combat Dev.Cmd.Hqs.												2												2			
Engr. Ctr. & School						1																					
Army Mgmt. School						1																					
9. Frankford Ars.																											
Phila., Pa.													5			7								8		1	2

Table 9.10 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF SOCIAL SCIENCE BY INSTALLATION

SOCIAL SCIENCE

INSTALLATION	Archeology	Area Studies	Business Adm.	Business and Commerce	Economics	Education	Fine and Applied Arts	History	History of Science and Mathematics	Home Economics	Int. Relations	Journalism	Law Jurisprudence	Library and Archival Sci.	Music	Patent Law	Philosophy of Science	Political Science	Public Administration	Religion and Theology	Sociology	Speech	Anthropology	Scientific and Technical Documentation	Demography	Industrial Hygiene and Occupational Health	Other
10. Ft. Detrick, Md.																											
Biological Labs		1	2											4										7			
11. Walter Reed, Wash, D.C.																											
Walter Reed Gen Hosp.			2			1								2													2
Regional Dental Act.																											3
Med. R&D Cmd. Hqs.			2																								
Inst. of Dental Research																											3
Army Inst. of Rsch.		2				4																					8
Prosthetics Rsch Lab																											1
Armed Forces Inst of Pathology			1																								1
12. Natick, Mass.																											
Natick Lab Hqs.							2			2													1	4			
Inst. of Envir. Med.		1																					1				
13. Detroit Ars. Warren, Mich.																											
Tank & Auto Center														2										1			

Table 9.10 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF SOCIAL SCIENCE BY INSTALLATION

SOCIAL SCIENCE

INSTALLATION	Archeology	Area Studies	Business Adm.	Business and Commerce	Economics	Education	Fine and Applied Arts	History	History of Science and Mathematics	Home Economics	Int. Relations	Journalism	Law Jurisprudence	Library and Archival Sci.	Music	Patent Law	Philosophy of Science	Political Science	Public Administration	Religion and Theology	Sociology	Speech	Anthropology	Scientific and Technical Documentation	Demography	Industrial Hygiene and Occupational Health	Other
14. Ft. Huachuca, Ariz.																											
Elect. P. G.			1					1				1	4											7			2
Elect. R&D Act.																								1			
Com-Elect. Agency			1																					3			2
15. Watertown Ars., Mass																											
Mat'l. Rsch Agency			2																					10			
Headquarters																								7			
16. Engr. Waterways																											
Exper Sta.														6													
Vicksburg, Miss.																								7			1
17. Washington, D. C.																											
AMC Hqs.			2																					1			1
Dir. of Army Rsch.																											4
18. Watervliet Ars., N. Y.																											
Headquarters																											1
19. Rock Island Ars., Ill.																											
Weapons Cmd. Hqs.											1													2			2
Rock Island Ars.																								1			
20. Ft. Eustis, Va.																											
Trans. Rsch. Cmd.			1																					1			

Table 9.10 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF SOCIAL SCIENCE BY INSTALLATION

SOCIAL SCIENCE

INSTALLATION	Archeology	Area Studies	Business Adm.	Business and Commerce	Economics	Education	Fine and Applied Arts	History	History of Science and Mathematics	Home Economics	Int. Relations	Journalism	Law Jurisprudence	Library and Archival Sci.	Music	Patent Law	Philosophy of Science	Political Science	Public Administration	Religion and Theology	Sociology	Speech	Anthropology	Scientific and Technical Documentation	Demography	Industrial Hygiene and Occupational Health	Other
21. Ft. Sam Houston, Tex.																											
Brooke Gen. Hosp.						1																					2
Med. Svc. Agency																											1
22. Yuma, P.G., Ariz.																											
Headquarters			5																					8			
Elect. P.G. Test Act.																								1			
23. Dugway P.G., Utah																											
Headquarters												4												6			
24. Ft. Knox, Ky.																											
Armor Board			1																								
Armor Agency			2																								2
25. Presidio of San Francisco, Cal.																											
Letterman Gen. Hosp.																											2
26. Hanover, N. H.																											
Cold Regions R&E Labs																								1			2
27. St. Louis, Mo.																											
Air & Surface Mat. Cmd.			1		1																			1			
28. Ft. McClellan, Ala.																											
Chem-Bio-Rad Agency												3															
Chem Ctr & School			3			4																					

Table 9.10 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF SOCIAL SCIENCE BY INSTALLATION

SOCIAL SCIENCE

INSTALLATION	Archeology	Area Studies	Business Adm.	Business and Commerce	Economics	Education	Fine and Applied Arts	History	History of Science and Mathematics	Home Economics	Int. Relations	Journalism	Law Jurisprudence	Library and Archival Sci.	Music	Patent Law	Philosophy of Science	Political Science	Public Administration	Religion and Theology	Sociology	Speech	Anthropology	Scientific and Technical Documentation	Demography	Industrial Hygiene and Occupational Health	Other
29. Holloman AFB, N. M. Telecomputing Soc Inc							1																				
30. Ft. Lewis, Wash. Madigan Gen. Hosp.			6																								6
31. Ft. Benning, Ga. Infantry Agency Human Rsch. Unit												1									1						
32. Ft. Lee, Va. QM Rsch. & Engr. Fld. Svc. Agency			1																								
33. Ft. Bliss, Texas Nuclear Group Hqs. Air Defense Agency																								1			
34. Ft. Douglas, Utah Desert Test Ctr.														1										2			
35. Durham, N. C. Army Rsch. Office.			2																					3			

Table 9.10 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF SOCIAL SCIENCE BY INSTALLATION

SOCIAL SCIENCE

INSTALLATION	Archeology	Area Studies	Business Adm.	Business and Commerce	Economics	Education	Fine and Applied Arts	History	History of Science and Mathematics	Home Economics	Int. Relations	Journalism	Law Jurisprudence	Library and Archival Sci.	Music	Patent Law	Philosophy of Science	Political Science	Public Administration	Religion and Theology	Sociology	Speech	Anthropology	Scientific and Technical Documentation	Demography	Industrial Hygiene and Occupational Health	Other
36. Ft. Ord, Calif. Combat Dev. Cmd. Exper. Ctr.					1																						
37. Ft. Rucker, Ala. Aeromed Rsch. Unit														1													
38. Ft. Gordon, Ga.																											
Mil. Police Agency			1									1															
Civil Affairs Agency			1															1	1		1						1
TOTAL	1	4	54		2	12	5	1		2	1	19	9	21		11	1	1	2		2		2	152		6	62

Table 9.10 (Cont.) DISTRIBUTION OF USERS IN FIELDS OF SOCIAL SCIENCE BY INSTALLATION

10.0 USER NEEDS AND INSTALLATION FUNCTION

In this study an effort was made to determine the relationship between the job function of the user or the mission/function of the installation at which the user works and the information needed by the user to perform his tasks or the methods used to gather information. Although information on the function of individuals working for the Army was not available for this study, it was possible to correlate the functions of R&D installations with the subject fields of a high percentage (approximately 70%) of users at each installation. This comparison, presented in Table 10.1, shows a high degree of correspondence between the two areas. It also provides a check on the validity of the TEL/TIPS Survey and, in a broad sense, the function of the users at each installation. The information on functions presented in the table was obtained from the U. S. Government Purchasing and Sales Directory, compiled by the Small Business Administration, dated July 1964. The subject fields of potential users of information were obtained from the TEL/TIPS Survey.

Based on the information in this study, it is concluded that a functional analysis of the user, either individually or in specific group configurations, would not aid in the identification of user needs or provide useful design information for EDIS. The importance of this information is the logical correspondence shown

between the function of the installation and the subject fields of the user. This data will be used in succeeding work units of EDIS Task I to ascertain if the data on D&I holdings and information systems, along with the information on users' subject fields, is compatible with the functions of each installation.

TABLE 10.1 COMPARISON BETWEEN MISSION/FUNCTION OF ARMY R&D INSTALLATIONS AND SUBJECT FIELDS OF USERS

Organization and Installation	Mission/Function	Subject Fields of Users
Picatinny Arsenal, N. J. Headquarters	Research in the fields of explosives, propellants and pyrotechnics; operate the DoD Plastic Technical Evaluation Center; designs and develops artillery ammunition, propellants, liquid and hybrid propulsion systems, bombs, mines, grenades, and atomic warhead sections.	1. Ordnance Engineering 2. Industrial Engineering 3. Electronics Engineering 4. Mechanical Engineering 5. Organic Chemistry 6. Maintenance Engineering 7. Product Engineering
Ft. Monmouth, N. J. Electronics Research and Development Labs	Research in all fields of science, the area of military electronics; develops new materials, techniques and design for electronic components parts, equipments and systems for communications, automatic data processing, surveillance, electronic warfare, meteorology, avionics and related fields.	1. Electronics Engineering 2. Electromagnetic Waves and Electron Physics 3. Solid State Physics 4. Mechanical Engineering 5. Physical Chemistry

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
White Sands Missile Range, New Mexico Electronics Research and Development Activity	Research in the fields of missile electronic warfare, missile vulnerability, missile surveillance, environmental sciences, including meteorology, electronic data processing, and missile range instrumentation leading to the development of equipment, systems, techniques, and devices; provides meteorological support for the research and development activities of the U. S. Army Missile Ranges, and coordinates the missile electronic countermeasures effort of the U. S. Army.	1. Electronics Engineering 2. Numerical Methods & Computation 3. Atmospheric Dynamics, Chemistry & Physics 4. Optics 5. Industrial Engineering 6. Ballistics 7. Electromagnetic Waves and Electron Physics

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Aberdeen Proving Ground U. S. Army Ballistics Research Laboratories	Basic and applied research in weapons technology; weapons systems evaluation; and ballistics and related sciences of physics, mathematics, chemistry, engineering, and biophysics.	1. Electronic Engineering 2. Numerical Methods and Computation 3. Mathematics of Resource Use 4. Physics of Fluids 5. Statistics 6. Organic Chemistry 7. Atmospheric Dynamics, Chemistry & Physics 8. Engineering Mechanics 9. Aeronautical Engineering 10. Mechanics 11. Physical Chemistry
Aberdeen Proving Ground U. S. Army Human Engineering Laboratories	Human factors research and engineering; monitors the total AMC human factors program; assures that AMC material evolved conforms with the capabilities and limitations of the fully equipped soldier to operate and maintain the material in his operational environment consistent with tactical requirements and logistic capabilities.	1. Human Engineering 2. Experimental, Comparative and Physiological Psychology 3. Acoustics 4. Electronics Engineering

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Aberdeen Proving Ground U. S. Army Coating and Chemical Laboratory	Basic and applied research and engineering investigations in the fields of automotive chemicals, organic and semiorganic coatings, and cleaners; standardization and industrial preparedness programs within these assigned fields.	1. Organic Chemistry 2. Analytical Chemistry 3. Physical Chemistry
Redstone Arsenal, Ala. Missile Command Hq.	Plan, direct and supervise a material development program embracing guided and ballistic systems, rocket motors, and components peculiar to these systems; plan, direct, accomplish and evaluate basic and applied research in support of the development program.	1. Electronics Engineering 2. Industrial Engineering 3. Internal Combustion Power Plant Engineering 4. Aeronautical Engineering 5. Organic Chemistry 6. Mechanical Engineering

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Edgewood Arsenal, Maryland U. S. Army Nuclear Defense Laboratory	To provide technical information in the field of radiological defense and health physics to agencies responsible for the development for clothing, vehicles, protective structures, and other end items which might incorporate nuclear protection; develop radioactive waste disposal methods and shipping containers; conduct research in the nuclear weapons effects research area of fallout, residual radiation, and thermal phenomena.	1. Nuclear Structure Physics 2. Physical Chemistry 3. Solid State Physics 4. Analytical Chemistry 5. Meteorology
Edgewood Arsenal, Maryland Chemical Research and Development Laboratories	Research and development in the fields of chemical, smoke and flame weapons, including the defensive aspects.	1. Chemical Warfare Agents 2. Analytical Chemistry 3. Pharmacology 4. Organic Chemistry 5. Chemical Engineering 6. Physical Chemistry

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Harry Diamond Laboratories, Washington, D. C.	Basic and applied research in target detection and signature analysis and for target intercept phase of terminal guidance; performs weapons systems synthesis and analysis to determine characteristics which will affect fuze design to achieve maximum immunity to adverse influences, including counter-countermeasures, nuclear environment, battlefield conditions and high altitude and space environments. Performs basic and applied research in support of assigned mission on instrumentation, measurement and simulation, on materials, components and subsystems including electronic timers for weapons and on selected advanced energy transformation and control systems; conducts basic research in the physical sciences; performs basic and applied research on fluid amplification and control and development of pure fluid devices and systems.	1. Electronics Engineering 2. Solid State Physics 3. Ordnance Engineering 4. Industrial Engineering 5. Mechanical Engineering

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Ft. Belvoir, Virginia Engineer Research and Development Laboratories	Research, development, design and testing in the fields of radiation and illumination, mine detection, and electrical engineering; construction, industrial gases, industrial engines, petroleum equipment, air conditioning, and heating equipment; water purification, waste disposal, camouflage, mine-field laying and clearance, bridges, and firefighting equipment.	1. Mechanical Engineering 2. Electrical Engineering 3. Industrial Engineering 4. Electronics Engineering 5. Solid State Physics 6. Optics 7. Civil Engineering 8. Physical Chemistry 9. Organic Chemistry
Frankford Arsenal, Philadelphia, Pa.	Research in fields of nonferrous metallurgy, optics, synthetic lubricants, and plating and electrochemical treatment of metals; designs and develops fire control devices, cartridge actuated devices, small arms ammunition, cartridge cases and projectiles for artillery ammunition, and mechanical time fuzes.	1. Electronics Engineering 2. Metallurgy and Metallurgical Engineering 3. Mechanical Engineering 4. Optics 5. Physical Chemistry 6. Industrial Engineering 7. Organic Chemistry

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Ft. Detrick, Maryland Biological Laboratories	Research and development in the fields of biological agents and weapons, including the defensive aspects.	1. Biological Warfare Agents 2. Virology 3. Microbiology 4. Aerobiology 5. Biochemistry 6. Bacteriology 7. Immunology
Natick, Massachusetts Natick Laboratories	Research and development in the physical, biological, and earth sciences; engineering to meet military requirements in the commodity areas of textiles, clothing, body armor, footwear, organic materials, insecticides and fungicides, subsistence, containers, POL handling and dispensing equipment, materials handling equipment, food service equipment, field support equipment, including printing and composing equipment, tentage, and air delivery equipment.	1. Organic Chemistry 2. Mechanical Engineering 3. Agriculture and Food Chemistry 4. Analytical Chemistry 5. Physical Chemistry 6. Product Engineering 7. Industrial Engineering 8. Microbiology 9. Climatology

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Detroit Arsenal, Warren, Michigan U. S. Army Tank Automotive Center	Advanced design programs on tank-automotive vehicles and components; conducts research programs in physical sciences, nucleonics and land locomotion as pertains to tank-automotive material; design and construction of operable demonstration models of tracked and wheeled vehicles; operates automotive laboratories for research, development and engineering of military vehicles and components including engines, power trains, and suspension systems.	1. Architectual Engineering 2. Mechanical Engineering 3. Industrial Engineering 4. Electronics Engineering 5. Organic Chemistry 6. Materials Engineering 7. Electrical Engineering 8. Engineering Mechanics
Ft. Huachuca, Arizona Electronics Research and Development Activity	Research, design and development of systems and equipment in the fields of automatic data processing, communications, electronic warfare, combat surveillance and target acquisition, meteorology and avionics; also provides worldwide meteorological support.	1. Electronics Engineering 2. Meteorology

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Watertown Arsenal, Massachusetts Headquarters	Design, development, and production of missile containers and related items.	1. Product Engineering 2. Maintenance Engineering 3. Industrial Engineering 4. Mechanical Engineering 5. Ordnance Engineering
Watertown Arsenal, Massachusetts Materiels Research Agency	To manage and direct that portion of the AMC materiels research program conducted within its own laboratories, including basic scientific research, and research in metals, ceramics and other materials.	1. Metallurgy and Metallurgical Engineering 2. Engineering Mechanics 3. Physical Chemistry 4. Mechanical Engineering 5. Solid State Physics 6. Analytical Chemistry

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Watervliet Arsenal, New York Headquarters	Design, development, product engineering and manufacturing relating to mortars, recoilless rifles, cannon assemblies and components thereof, related secondary items, tools and equipment; responsible for design, procurement, storage and issue of all special final inspection gages for cannon, and cannon bore inspection tools, calibration, proofing and test equipment; responsible for applied research in physical sciences, engineering sciences and high pressure materials and processes; performs weapons-oriented exploratory research in the fields of applied mathematics, applied mechanics, solid state physics, metallurgy, microscopy and high pressure materials and processes.	1. Ordnance Engineering 2. Mechanical Engineering 3. Product Engineering 4. Engineering Mechanics 5. Metallurgy and Metallurgical Engineering

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Rock Island Arsenal, Ill. Rock Island Arsenal	Basic and applied research and development related to weapons and weapon components which are new in design and concept; performs research with respect to rubber, corrosion preventives, greases, and packaging techniques for advanced materiel; performs mechanical engineering research related to design, development engineering and production of components and end items of field artillery and rocket launchers.	1. Organic Chemistry 2. Physical Chemistry 3. Ordnance Engineering 4. Mechanical Engineering

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Ft. Eustis, Virginia Transportation Research Command	Research and engineering of equipment utilized in marine, amphibious, and land logistical transport systems; performs preliminary design studies of complete advanced aircraft systems; conducts basic and applied research in the field of near-ground aerodynamics; conducts an aeronautical propulsion and aerodynamics research program, as well as applied aeronautical engineering research in design, fabrication, testing and evaluation of advanced aircraft systems.	1. Aeronautical Engineering 2. Electronics Engineering 3. Mechanical Engineering
Springfield Armory, Springfield, Massachusetts Springfield Armory	Research, development, engineering, and manufacturing relating to personal weapons, automatic weapons and aircraft armament.	1. Ordnance Engineering 2. Product Engineering 3. Mechanical Engineering 4. Metallurgy and Metallurgical Engineering

TABLE 10.1 (Cont'd)

Organization and Installation	Mission/Function	Subject Fields of Users
Hanover, New Hampshire U. S. Army Cold Regions Research and Engineering Laboratory	Basic and applied research pertaining to snow, ice, and frozen ground.	1. Civil Engineering 2. Hydrology 3. Photogrammetry, Surveying, Cartography and Photointerpretation 4. Electronic Engineering 5. Engineering Mechanics
c. Louis, Missouri Aviation and Surface Materiel Command	Design, development, production, and maintenance engineering for aircraft and aeronautical equipment; product, production, and maintenance engineering on amphibious, marine, and rail equipment; procures above air and surface equipment.	1. Aeronautical Engineering 2. Electrical Engineering 3. Mechanical Engineering

11.0 USER NEEDS AND GEOGRAPHIC DISTRIBUTION

An important criterion in the design of an information network is the geographic distribution of the users of that network. In this study an attempt was made to determine the concentrations of potential users of EDIS by various parameters, such as location and discipline. Table 11.1 shows the number of users by state. Table 11.2 presents the number of users by installation. Table 11.3 shows the number of users by discipline for geographic areas of the United States. Data and information used to prepare these tables were obtained from the TEL/TIPS Survey conducted in FY 1964.

Table 11.1
Distribution of Army RDT&E Personnel by State

State	No. of RDT&E Personnel	State	No. of RDT&E Personnel
New Jersey	3072	Texas	170
Maryland	2034	California	157
Washington, D. C.	1285	Illinois	152
New Mexico	1231	Utah	151
Alabama	970	Kentucky	120
Massachusetts	870	New Hampshire	110
Virginia	813	Arkansas	91
Pennsylvania	514	Missouri	79
Arizona	429	Georgia	77
Michigan	403	Washington	76
Mississippi	269	North Carolina	60
New York	221	Ohio	45
		Colorado	43

Table 11.2

Distribution of Army RDT&E Personnel by Installation

Installation	No. of RDT&E Personnel
Picatinny Arsenal, New Jersey	1576
Ft. Monmouth, New Jersey	1496
White Sands Missile Range, New Mexico	1143
Aberdeen Proving Ground, Maryland	870
Redstone Arsenal, Alabama	857
Edgewood Arsenal, Maryland	682
Harry Diamond Labs, Washington, D. C.	610
Ft. Belvoir, Virginia	608
Frankford Arsenal, Philadelphia, Pa.	505
Ft. Detrick, Maryland	482
Walter Reed General Hospital, Washington, D. C.	463
Natick Labs, Massachusetts	451
Detroit Arsenal, Warren, Michigan	403
Ft. Huachuca, Arizona	302
Watertown Arsenal, Massachusetts	271
Engineering Waterways Exper. Station, Vicksburg, Mississippi	269
Washington, D. C.*	212
Watervliet Arsenal, New York	205
Rock Island Arsenal, Illinois	162
Ft. Eustis, Virginia	156
Springfield Armory, Springfield, Massachusetts	148
Ft. Sam Houston, Texas	129
Yuma Proving Ground, Arizona	127
Dugway Proving Ground, Utah	120
Ft. Knox, Kentucky	120
Presidio, San Francisco, California	115
Hanover, New Hampshire	110
St. Louis, Missouri	101
Pine Bluff Arsenal, Arkansas	91
Ft. McClellan, Alabama	89
Holloman Air Force Base, New Mexico	88
Ft. Lewis, Washington	76
Ft. Benning, Georgia	65

*Includes AMC Headquarters, Director of Army Research, OCRD, and Special Projects.

Table 11.2 (Cont'd)
Distribution of Army RDT&E Personnel by Installation

Installation	No. of RDT&E Personnel
Ft. Lee, Virginia	49
Medical Research & Nutrition Lab, Denver, Colo.	43
Ft. Bliss, Texas	41
Ft. Bragg, North Carolina	32
Ft. Douglas, Utah	31
Ohio River Division Lab, Cincinnati, Ohio	29
Army Research Office, Durham, N. C.	28
Ft. Ord, California	26
Ft. Rucker, Alabama	24
Edwards Air Force Base, California	16
Ft. Totten, New York	16
Erie Proving Ground, Port Clinton, Ohio	16
Ft. Gordon, Georgia	12
Electronics Material Agency, Philadelphia, Pa.	8
Valley Forge General Hospital, Phoenixville, Pa.	1

Table 11.3 shows the distribution of Army RDT&E personnel by geographic area for each of the nine disciplines. The states included in the geographic areas are as follows:

Geographic Areas	States
1. Northeast	Massachusetts, New Hampshire, New York, New Jersey and Pennsylvania
2. Middle Atlantic (D. C. Area)	Virginia, Washington, D. C. and Maryland
3. South	North Carolina, Georgia, Texas, Alabama, Arkansas, Kentucky, Missouri and Mississippi
4. West	California, Utah, Arizona, New Mexico, Colorado, and Washington
5. Middle West	Ohio, Michigan, Illinois

A number of observations may be made from the data presented in Table 11.3.

a. All disciplines are heavily concentrated in the combined Northeast and Middle Atlantic area.

b. Engineering and Physics have their largest concentrations in the Northeast.

c. Biology, Chemistry and Psychology have their major concentrations in the Middle Atlantic (D. C. Area).

d. Significant concentrations in Earth Science, Mathematics and Statistics, and Social Science exist in the West.

e. The South nas a significant concentration in Psychology.

f. Engineering is the only discipline that has a significant number of users in each geographic area.

Geographical distribution data from the tables in this section along with data from the concurrent HRC reports on D&I holdings and existent data systems should be used in the design of EDIS to determine the optimal number and locations of the EDIS switching centers.

Table 11.3
Distribution of Users by Discipline According to Geographic Area

Discipline	No. of RDT&E Personnel	Geographic Area				
		Northeast	Middle Atlantic (D.C. Area)	South	West	Midwest
		%	%	%	%	%
Astronomy	9	33.3	66.6	0	0	0
Biology	1297	4.9	73.1	8.8	13.2	0
Chemistry	1683	35.6	42.7	10.1	5.7	5.9
Earth Science	458	30.0	29.5	12.6	25.8	2.1
Engineering	7572	45.6	22.6	11.5	12.4	7.9
Math & Statistics	964	22.9	33.2	12.9	29.2	1.8
Physics	1471	42.8	36.3	8.6	10.8	1.5
Psychology	262	16.5	35.0	33.5	13.4	1.6
Social Science	370	29.7	29.3	17.3	21.3	2.4

APPENDIX A

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13. ABSTRACT

This report presents the identification of user needs in the Army RDT&E community. Two types of information are provided in this report. The first type includes discussions of the RDT&E cycle, the level of informational need, time response, item categories and other factors as they relate to the user of scientific and technical information. The second type of information presented is parametric and includes information on the users in the Army RDT&E community classified by discipline, subject field, mission/function and geographic distribution. This information was developed as part of the Task I effort for the Army Engineering Data and Information System (EDIS).

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